



3 1761 11649419 6

CA2
ON ED
- E17



ONTARIO

Economic and Social Aspects

SURVEY

Prepared by the
ONTARIO DEPARTMENT OF ECONOMICS
1961



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761116494196>

Ont. Dept. of Economics.

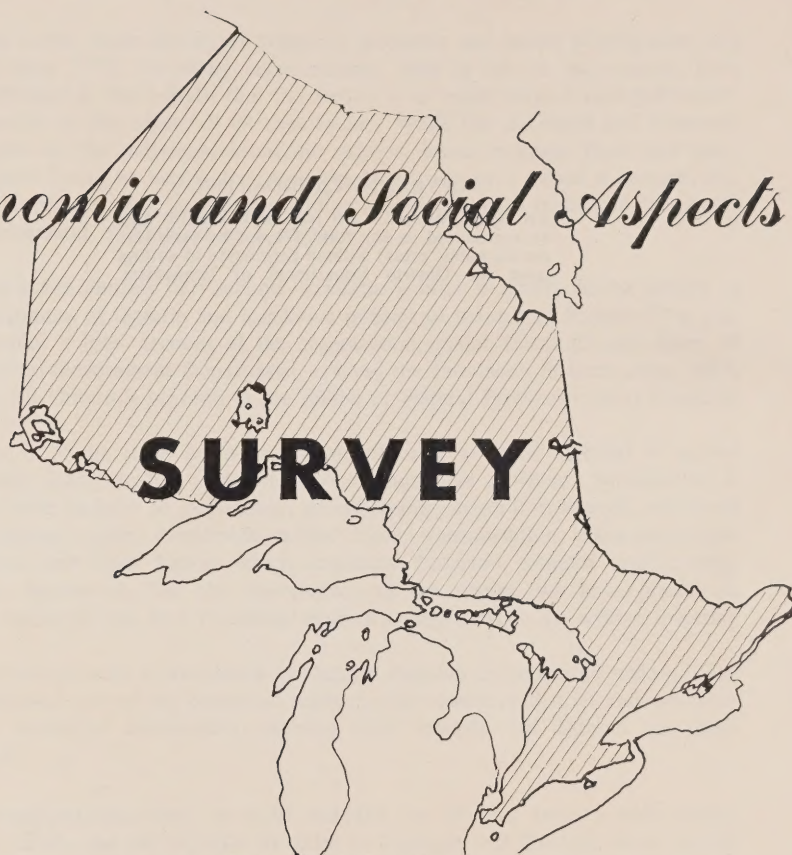
Ontario survey: an outline of
its economic, financial and social
aspects.

ONTARIO

*An Outline of its Economic, Financial
and Social Aspects*

ONTARIO

Economic and Social Aspects



Prepared by the
ONTARIO DEPARTMENT OF ECONOMICS
1961

HON. LESLIE M. FROST
Prime Minister of Ontario

HON. JAMES N. ALLAN
Treasurer of Ontario

GEORGE GATHERCOLE
Deputy Minister of Economics

Members of the Executive Council of the Province of Ontario

HON. LESLIE M. FROST, Q.C.	<i>Prime Minister and President of the Council</i>
HON. CHARLES DALEY	<i>Minister of Labour</i>
HON. WILLIAM A. GOODFELLOW	<i>Minister of Agriculture</i>
HON. LOUIS P. CECILE, Q.C.	<i>Minister of Public Welfare</i>
HON. WILLIAM K. WARRENDER, Q.C.	<i>Minister of Municipal Affairs</i>
HON. JAMES N. ALLAN	<i>Treasurer and Minister for the Department of Economics and Federal and Provincial Relations</i>
HON. WILLIAM M. NICKLE, Q.C.	<i>Minister of Commerce and Development</i>
HON. A. KELSO ROBERTS, Q.C.	<i>Attorney General and Minister for the Department of Insurance</i>
HON. BRYAN L. CATHCART	<i>Minister of Travel and Publicity</i>
HON. T. RAY CONNELL	<i>Minister of Public Works</i>
HON. MATTHEW B. DYMOND, M.D.	<i>Minister of Health</i>
HON. J. WILFRID SPOONER	<i>Minister of Lands and Forests</i>
HON. FREDERICK M. CASS, Q.C.	<i>Minister of Highways</i>
HON. JOHN YAREMKO, Q.C.	<i>Provincial Secretary and Minister of Citizenship</i>
HON. ROBERT W. MACAULAY, Q.C.	<i>Minister of Energy Resources and 2nd Vice-Chairman, H.E.P.C.</i>
HON. JAMES A. MALONEY, Q.C.	<i>Minister of Mines</i>
HON. GEORGE C. WARDROPE	<i>Minister of Reform Institutions</i>
HON. JOHN P. ROBARTS, Q.C.	<i>Minister of Education</i>
HON. JOHN H. H. ROOT	<i>Minister without Portfolio</i>
HON. HENRY LESLIE ROWNTREE, Q.C.	<i>Minister of Transport</i>
HON. ALLAN GROSSMAN	<i>Minister without Portfolio</i>
HON. W. A. STEWART	<i>Minister without Portfolio</i>

Contents

	Page
PREFACE	v
 PART I HISTORY, GOVERNMENT AND FINANCE, PROVINCE OF ONTARIO	 1
Historical Sketch of Ontario's Development	3
Chronology of Major Events in Ontario	17
Departmental Organization and Activities of the Government of Ontario	21
Trends in Ontario's Finances in the Post World War II Period	50
Review of Ontario's Fiscal Relations with the Federal Government	54
 PART II ECONOMIC AND SOCIAL ASPECTS OF ONTARIO	 65
Physical Environment	67
Population	70
Labour Force, Employment and Earnings	77
Prices and Trade	81
National Accounts, Income and Expenditure	91
Capital Investment	95
Natural Resources	98
Agriculture	98
Forestry and Forest-Based Industries	106
Fishing, Trapping and Fur Farming	113
Mining	117
Conservation	125
Energy	130
Manufacturing	143
Construction, Housing and Living Conveniences	154
Survey of Production	161
Tourist Trade	162
Transportation	166
Communications	179
 APPENDIX — STATISTICAL STATEMENTS	 187
 PART III ECONOMIC REGIONS OF ONTARIO	 233

PART I

History, Government and Finance

Province of Ontario

Historical Sketch of Ontario's Development

In 1611, Etienne Brulé, the first *coureur de bois*, braved the Ottawa River's fierce currents and black depths. His expedition and the similar one two years later by Samuel de Champlain, the founder of Canada, inaugurated the recorded history of Ontario.

During the succeeding 150 years of the French Regime, Ontario was a brooding wilderness, penetrated only by the

fur trader, the adventurer and the missionary. Following Brulé and Champlain, other heroic men traced out water routes and built tiny forts and fur trading posts. The vigorous competition for the pelts of the Great Lakes basin gave rise to bitter conflict between the Indian nations and between those who bought their furs—the British, French and Dutch. Martyrdom



SAMUEL DE CHAMPLAIN

came to Brébeuf and Lalemant when the Iroquois destroyed the Huron nation. But the land itself remained primeval until long after the victories of the Seven Years' War had brought all of Canada under British rule in 1763.

The real development of Ontario commenced with the American Revolution. Through Guy Carleton's steadfast defence of Quebec, the northern colony was saved for Britain and a new homeland was reserved for the Loyalist



Courtesy—C. W. Jefferys Imperial Oil Collection.

LOYALISTS ON THEIR WAY TO UPPER CANADA.

citizens of the Thirteen Colonies. Except for the French Canadians who had established a flourishing community in the Detroit-Windsor area, the United Empire Loyalists

were the first real settlers of the Province. They took up land in the Niagara Peninsula, along the St. Lawrence and around the Bay of Quinte. From this time forward, Ontario received a growing number of immigrants, men and women who were seeking opportunities and freedom in an unspoiled land.

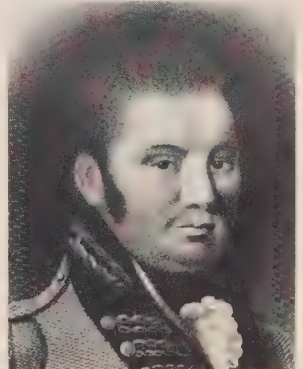
The very essence of their life was toil—the vast and painful task of turning the Ontario wilderness into a thriving and comfortable community. And yet labour was not the exclusive concern of the newcomers. They were interested, as well, in political matters, for they were accustomed to English institutions and to a degree of self-government.

The pre-Revolutionary Quebec Act, a measure which had re-established the undemocratic political system of the French Regime, did not harmonize with their philosophy of government. Recognizing this, the British Government, in 1791, divided the colony into the Provinces of Lower and Upper Canada (Ontario derives from the latter). At the same time, with the passage of the Constitutional Act, Britain gave the people of Upper Canada a new form of government: a Lieutenant-Governor, an Executive Council (or cabinet), a Legislative Council (or upper house) and an elected Assembly.

The task of setting up the new governmental machinery and of placing it in motion fell upon Lieut.-Col. John Graves Simcoe, the first Lieutenant-Governor. At his bidding, the first Legislature met at Newark (now Niagara-on-the-Lake) on September 17, 1792.

Loyal and courageous, Simcoe worked indefatigably to fashion an ordered community out of a chaotic frontier. Building roads and laying out townsites, he marked the path for the Province's future development. He was firmly convinced of the great destiny which awaited the new colony. Although some of his aims were impractical—such as his wish to duplicate the society of England in an essentially classless, backwoods region—it was he, nevertheless, who first took hold of the instruments of government and made them work. He is the true founder of Ontario.

The rich farming potential of the Province attracted many immigrants, especially from the United States, and the population increased rapidly. There were other Americans,



JOHN GRAVES SIMCOE

however, who coveted the fertile area for their country. Thus when Britain and the United States drifted into armed conflict for the second—and last—time in the War of 1812, Ontario was one of the chief prizes.

In battles and skirmishes along the St. Lawrence, Niagara and Detroit frontiers, as well as on the lakes, small forces of British regulars, Canadian militia and loyal Indians defended the Province under the skilful command of General Isaac Brock.



SIR ISAAC BROCK

Within a few weeks of the outbreak of war, Brock repulsed the first enemy attack, captured Detroit and accepted the surrender of a whole American army. The Canadians did not, of course, win every battle—and the war was won and lost elsewhere—but they left the Americans in no doubt of their dislike of republicanism and of their determination to resist it.

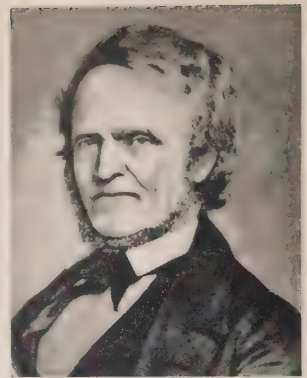
While their success renewed their loyalty to British institutions, it also evoked a vague stirring of nationalistic pride, which was to become increasingly apparent in the next few decades.

As the alien threat faded and the Province continued to develop, settlers began to focus their attention on internal problems. They became more and more dissatisfied with the land grant system and the reservation of large and choice tracts of land to support a church establishment. They thought the pace of public works development was too slow. They chafed at what they considered were economic abuses. These and other complaints, fertilized by reform and democratic ideas imported from the United States and Great Britain, generated in many minds a ferment of dissatisfaction over the concentration of political, economic and social power in the hands of a ruling clique known as the Family Compact. There was a growing agitation to make the Executive Council, the Compact's chief instrument of power, responsible to the Legislative Assembly and, hence, to the people.

Lack of progress in the achievement of this goal so fired the passions of William Lyon Mackenzie and a radical sect of Reformers that they resorted to arms in 1837. Their rebellion collapsed immediately because it failed to gain the active sympathy of a significant proportion of the population. Mackenzie's wild gesture, nevertheless, brought forcibly to the attention of the Imperial authorities the bitter complaints of the people of Upper Canada, and Lord Durham was appointed by the British Government to investigate the causes of conflict.

In 1839, after a hurried inspection of Canada, Lord

Durham presented his famous report to the British Government. His principal recommendations called for the union of Upper and Lower Canada and the granting of responsible government. Only the first was implemented immediately by the British Government. On February 10, 1841, when the Union came into operation, the fight for responsible government was



WILLIAM LYON MACKENZIE

continued at the new capital of Kingston. In Upper Canada, the leader of the cause was Robert Baldwin, the astute and incorruptible Reformer. Until the late 1840's, the idea of self-government was viewed by successive



Courtesy—C. W. Jefferys Imperial Oil Collection.
REBELS OF UPPER CANADA REBELLION MARCHING DOWN
YONGE STREET TO ATTACK TORONTO, DECEMBER, 1837.

British Governments and colonial governors as being totally incompatible with the prevailing Imperial system. But, in 1849, during the governorship of Lord Elgin, Durham's son-in-law, the principle was finally accepted and established.



ROBERT BALDWIN



LOUIS H. LAFONTAINE

The first responsible government—the Baldwin-Lafontaine ministry—distinguished itself by laying the foundation for Ontario's present system of local self-government: in 1849, the Municipal Act was passed, giving municipalities a broad autonomy in matters of local administration. During this period of political reform, significant strides were made in other fields in the United Province: a much more efficient civil service was developed; the newly established Board of Works built roads and other public improvements on a truly impressive scale; villages and towns expanded. Trade, commerce and agriculture flourished; industries were established. The era of the backwoods began to fade away.

In the 1850's the predecessors of Ontario's present two main parties were forged out of a diversity of political groupings. The rising politician, John A. Macdonald, constructed a moderate conservative party, while George Brown worked to transform the radically-tinged Clear Grits into a liberal party on the British model.

By the early 1860's the union of the two Canadas had produced political deadlock. Representation in the Assembly from the two sections was equal and the parties were so evenly balanced that it was impossible to obtain stable ministries. Many believed that a solution to this difficulty, as well as to the problems of defence, trade, railways and western settlement which were worrying all the British North American provinces, could be found in a federation of the provinces.

John A. Macdonald and George Brown reconciled their bitter political differences in the "Great Coalition" of 1864 and, together, they worked to convince their own people and the citizens of the Maritimes, who at that time were considering union among themselves, that a larger federation was imperative. After much conferring, campaigning and negotiating with the British Government, the Dominion of Canada came into existence on July 1, 1867, and Upper Canada, or Canada

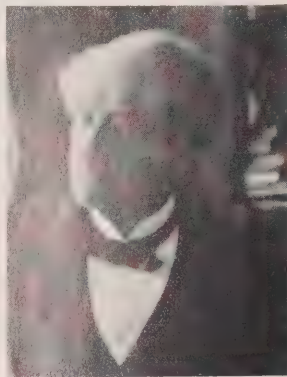
West as it was also known, became the new Province of Ontario.

The British North America Act, the major statute of Canada's constitution, assigns to the Federal and Provincial authorities their respective duties and responsibilities. Under section 92 are listed 16 topics over which the Province has exclusive control. These include such matters as property and civil rights, the amendment of the constitution of the Province, direct taxation within the Province and the administration of justice, public lands and municipal institutions. The final clause gives it general control over "all Matters of a merely local or private Nature in the Province". In addition, the Province has exclusive power over education, while other subjects such as agriculture and immigration may be dealt with by both the Provincial and Federal authorities. All powers not specifically granted to the Province, as well as the 29 enumerated in Section 91 of the Act, are reserved for the Federal Government. This division of the legislative powers has resulted in a great deal of litigation in the courts over questions of authority and the judgments form a large part of the constitutional law of Canada, but considering all the difficulties, the system has worked remarkably well.

In addition to setting out the fields within which the Province could legislate, the British North America Act provided for the physical form of the Legislative Assembly—it was to be unicameral and to consist of 82 members elected for a four-year term.¹ (The membership was gradually increased to 112 during the next half century, then cut to 90 and in 1955 set at 98. The term is now five years.)

The first Legislative Assembly of Ontario met on December 27, 1867, at the old Parliament Buildings on Front Street in Toronto, where many fierce political battles had been waged in the days of the Family Compact. At the instance of Sir John A. Macdonald, the provisional Lieutenant-Governor (Major-General Henry William Stisted) called on John Sandfield Macdonald to form an administration and become Ontario's first Premier. J. S. Macdonald had already played a leading role in the political life of the country, yet he had been one of the chief opponents of Confederation. Thinking it best to

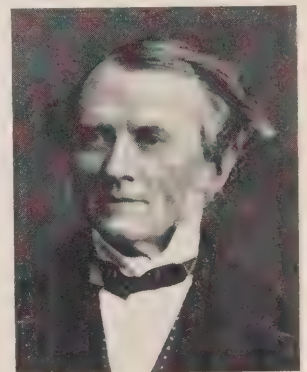
¹Nevertheless, section 92(1) of the B.N.A. Act 1867, empowers the Provinces to amend their constitutions, including the physical form of their Legislatures, except as regards the office of Lieutenant-Governor.



SIR JOHN A. MACDONALD



GEORGE BROWN



JOHN SANDFIELD MACDONALD
1867-1871

construct the new administration on a coalition basis, Macdonald brought in such men as Edmund B. Wood, Treasurer, and Matthew Crooks Cameron, Secretary and Registrar; the Ministry was confirmed by an election prior to the opening of the Legislature.

The J. S. Macdonald Ministry busied itself immediately with the organization of Provincial Government services. Appropriations were made for the construction and improvement of roads. Provision was made for an agricultural college and technological school. In 1868, The Ontario Drainage Act was passed. The Government set aside \$1,500,000 in 1871 to aid in the building of railways. This was severely criticized by Macdonald's opponents who rallied sufficient strength to their viewpoint to defeat him at the polls. In December, 1871, the Macdonald Ministry resigned and the post-Confederation coalition came to an end.

The Leader of the Opposition, Edward Blake, was invited by the Lieutenant-Governor to form the new administration and the long era of Liberal government began. Blake's Treasurer was Alexander Mackenzie, the stonemason, who became the first Liberal Prime Minister of Canada just two years later.

In fulfilment of their election pledges, the Government brought in a bill making all railway grants subject to ratification by the Legislature. The Blake Ministry was short-lived. In 1872, a long-expected measure made it illegal for M.P.P.'s to sit simultaneously as members of the Federal Parliament and shortly afterwards, Blake and Mackenzie, as well as John Carling of the Opposition, said farewell to Provincial politics.



EDWARD BLAKE
1871-1872

Acting on the former Premier's advice, the Lieutenant-Governor, Sir William Howland, went outside the Legislature to the bench to secure Blake's successor—Oliver Mowat. Mowat had been a politician of note in the days preceding Confederation, and had been present at the Quebec Conference as one of the representatives from Canada West. The new Premier reorganized the Blake Cabinet, assuming the office of Attorney-General himself. Adam Crooks became the Provincial Treasurer, while Archibald McKellor and R. W. Scott remained as the Commissioners of Agriculture and Public Works, and Crown Lands, respectively.

Oliver Mowat was the Prime Minister of Ontario for nearly a quarter of a century and during that time he administered Provincial affairs with astonishing energy and activity. He placed a vast amount of legislation on the



SIR OLIVER MOWAT
1872-1896

statute books and became a forthright champion of "provincial rights".

During the first session of the new Legislature in 1873, surplus funds of the Provincial Treasury were distributed to the municipalities and long-standing debts owed the Province by many municipalities were thus cancelled. The following year, Mowat introduced the first of those franchise extension measures which

were to culminate in The Manhood Suffrage Act of 1888.

Two important pieces of legislation enacted during the session of 1875-76 were The Licence Act and The Education Department Act. The Licence Act took the licensing of liquor outlets away from the municipalities and placed it in the hands of a Board of Commissioners appointed by the Government. The Education Department Act marked a radical change in the administration of Ontario's educational system which had been under the control of the Council of Public Instruction, appointed by the Crown from among the eminent educationists of the day. The new bill abolished the Council and substituted a Department of Education. Later, the duties of the Minister of Education were separated from those of the Provincial Treasurer, to which they had been joined. Adam Crooks left the Treasury and assumed the new portfolio.

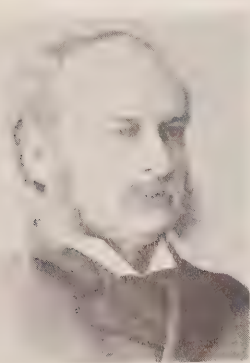
Mowat contributed much in the field of law reform. A series of enactments between 1881 and 1895 modernized the courts of the Province, establishing a uniform and expeditious system of pleading and practice. Mowat simplified and revised the statutes of Ontario, reformed the electoral laws and introduced the use of the ballot. His Government established boards of health throughout the Province and organized the first public health services in Ontario.

The first Ontario legislation regulating the hours and conditions of work of children and women in factories and imposing strict safety and sanitary standards was passed in 1884. Other portions of the Province's labour code also had their genesis in the Mowat era. Such statutes as The Mechanics' Lien Act, The Employers' Liability Act and The Work and Wages Act, all designed to protect workingmen, were passed under Mowat's aegis. The first free library in Ontario was opened at Toronto in 1884. In 1892 The Succession Duties Act introduced the principle of the graded estate tax. The revenues from this source were earmarked for the support of hospitals, asylums and, in 1906, the University of Toronto.

Mowat and Sir John A. Macdonald engaged for years in a running battle on the question of provincial rights. Sir John had always viewed the provinces as being completely subordinate to the Dominion, and this view was reflected in the Ontario Legislature by M. C. Cameron and W. R. Meredith, leaders of the Opposition. Mowat, however, regarded the Provincial Legislature as sovereign within its allotted sphere and became highly sensitive to what he thought were Federal encroachments. He was always prepared to carry disputed cases to the courts, and a series of judgments in favour of the Province confirmed his triumph over the champions of Federal supremacy.

At the same time, a controversy developed over provincial boundaries which was of great significance for the future of the Province. Ontario's northern and western borders had never been clearly defined, and an arbitration commission, appointed by the Mackenzie Government, corroborated the Province's claim to the vast hinterland lying north and west of Lake Superior. Sir John A. Macdonald, on his return to power in 1878, claimed that the disputed territory belonged to the Dominion which had acquired it from the original Indian owners. In 1888, however, the judgment of the Indian Titles Case proved to be another victory for the Premier of Ontario.

The Legislature and Government Departments moved during the Mowat regime from the old Parliament Building erected in 1832 on Front Street, to the new site at Queen's Park. Although an act was passed in 1880 to provide for the new building, it was completed only in 1893.



ARTHUR S. HARDY
1896-1899

When Sir Charles Tupper and the Conservative Party went down to defeat in the Federal election of 1896, Sir Wilfrid Laurier asked Mowat to become Minister of Justice in the new Cabinet at Ottawa. A. S. Hardy, who had been Provincial Secretary and Commissioner of Crown Lands in previous Mowat administrations, was asked to head the Government of Ontario.

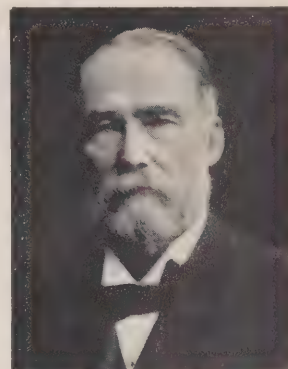
Hardy's Cabinet was merely a reorganization of the preceding executive, with the new Prime Minister holding the office of Attorney-General. The Conservatives chose a new leader at the same time—James Pliny Whitney.

A highly significant piece of legislation passed during Hardy's administration was The Act to Supplement the Revenues of the Crown—in effect, a corporation tax measure. It imposed a tax on banks, insurance companies, loan and trust companies, railways, gas and electric companies, and other utilities. The Provincial election of

1898 showed that Hardy did not hold the confidence of the electorate as Mowat had done, and the Government majority was reduced. A year later, ill health forced him to retire.

G. W. Ross, Minister of Education since 1883, became Premier and Provincial Treasurer on Hardy's resignation.

He proclaimed a new policy for the Government—that of "Building up Ontario". During the six years of his regime, great strides were made in opening up and surveying the newer parts of the Province. The Government assisted financially in the reorganization of the Lake Superior Consolidated Company, a combination of industries at Sault Ste. Marie, and gave substantial aid to northern railways. In 1902, the construction of the government-owned Timiskaming and Northern Ontario Railway, now the Ontario Northland, was authorized.



GEORGE W. ROSS
1899-1905

A substantial body of legislation relating to agriculture was placed on the statute books during this period; the Sugar Beet Industry Grant in 1901, for example, gave special encouragement to this enterprise. One million dollars was set aside for the improvement of public highways and a tax was imposed on the automobiles which were just beginning to appear on them. Certain textbooks were supplied free of charge to students in rural schools.

After the 1902 election, the Government possessed only a small and fluctuating majority. It appeared doomed to early defeat. Sessions of the Legislature were exciting and stormy as the parties struggled to retain or gain power.

In 1903, the Ross Government sponsored a measure which was the forerunner of Hydro legislation passed later in the Whitney period. It allowed municipalities to enter into undertakings to develop or transmit power for municipal, industrial or general public purposes.

The chief political issue in the final days of the Ross regime was undoubtedly prohibition. In 1901, the Judicial Committee of the Privy Council had ruled that the matter of liquor control was entirely within the constitutional sphere of the provinces. Prior to that decision, both Mowat and Ross had pledged themselves to go as far in the direction of prohibition as the Privy Council's judgment would allow. Now, Ross asked the people to decide in a referendum requiring a two-thirds majority. Prohibition gained a majority vote but fell short of the necessary two-thirds. Ross came under fire from temperance advocates who felt he had not gone far enough and from

the "Wets" who believed he had brought Ontario too close to prohibition.

The 1905 election ended 33 years of Liberal rule and gave the Province its first Conservative government, under James P. Whitney. The Ministry included J. J. Foy, Attorney-General; A. J. Matheson, Provincial Treasurer; and W. J. Hanna, Provincial Secretary, as well as Adam Beck, who was a Minister without Portfolio.

Whitney continued and expanded his predecessors' policy of developing "New Ontario", as the northern part of the Province was called. The T. and N.O. railway was extended; colonization roads were built; improved techniques for guarding timber resources were adopted; the pulp and paper industry was assisted; mining laws were modernized; the North was given its own representation in the Cabinet. In 1912, the Patricia District was formally attached to the Province and with it came a heightened interest in the North. Funds were appropriated for the construction of public works and roads, and for the encouragement of settlement and development.

Perhaps the most memorable achievement of the Whitney administration was the creation of a publicly owned system to supply electricity to the Province. At the request of a group of municipalities, Boards of Trade and manufacturing industries, a commission under the chairmanship of Adam Beck was established in 1905 to investigate the waterpower situation; it found that the transmission of electricity from Niagara to the municipalities of South-western Ontario was practical and it suggested that the best method of financing and building the necessary power installations would be through a publicly owned enterprise. Accordingly, the required measure was passed by the Legislature in May, 1906, and the first Hydro-Electric Power Commission of Ontario, with Adam Beck as its chairman, was appointed the next month. The new Commission began to purchase established power facilities and to develop new installations. The remarkable Sir Adam Beck remained as chairman until 1925, weathering several changes in the political climate of the Province.



SIR JAMES PLINY WHITNEY
1905-1914



SIR ADAM BECK

During the Whitney administration, Ontario's educational system underwent a thorough overhauling in methods and management. Provincial grants for local education were improved and enlarged, great impetus was given to the construction of rural schools and the salaries and status of teachers were raised. In urban schools, facilities for industrial training were instituted, while a course in agriculture for teachers was established at the Ontario Agricultural College. Large scale financial assistance was given to the University of Toronto, which was reorganized and reformed.

The Workmen's Compensation Act was passed in 1914, after the principle involved had been studied intensively for several years, both by government agencies and by employee and employer groups. Under the new measure, it was no longer necessary to prove negligence on the part of the employer before an injured employee could receive compensation. The employer now became responsible for all injury to employees in the occupations

to which the Act applied.

The Workmen's Compensation Board was constituted to administer the Act and collect compensation funds. The Ontario Workmen's Compensation Board has since become a model to the world.

Premier Whitney reorganized Ontario's finances. The levies on banks, railways and large corporations were reshaped, with the result that the Province's revenues were substantially increased.

The Ministry also created the Railway and Municipal Board to oversee the construction, operation and maintenance of railways, street railways and local telephone systems, within the Province. Penal procedures were reformed; the first prison farm was established at Guelph. The Province aided in the building of the present Toronto General Hospital, which was opened in 1913.

Prohibition continued to be one of the chief issues of the day. The Whitney Government's policy was one of gradual restriction and tighter control of liquor sales and outlets.

In 1914, Sir James Whitney died and William Howard Hearst, the Minister of Lands and Forests, became Prime Minister of Ontario. Hearst was well known to the public as an eloquent and persuasive proponent of the greatness and potential of "New Ontario" and of the need for tapping its rich resources.

Hearst came to the premiership just as World War I was beginning. His Government immediately took a lead



SIR WILLIAM H. HEARST
1914-1919

in supporting the cause of Canada and the Empire. It granted funds for desperately needed machine guns and established the Ontario Military Hospital at Orpington. Substantial gifts of cash and supplies were made to the United Kingdom, to Belgian relief funds, to the Navy, the Red Cross and similar organizations.

The war, of course, absorbed much of the energy and attention of the people, but it failed to lessen—indeed it seemed to intensify—the passions aroused by such matters as prohibition, hydro-electric policy and bilingual schools.

In March, 1916, the prohibition agitation reached its height, with a great procession through Toronto and the presentation to the Government of a petition signed by thousands of citizens of Ontario. In response, the Legislature passed The Ontario Temperance Act, revoking all liquor licences in the Province for the duration of the war.

The insatiable demand for electricity by Ontario's burgeoning war industries was one of the chief factors in the rapid growth of the new Ontario Hydro during the Hearst period. Hydro continued to purchase the assets and undertakings of private power companies and to plan and build its own installations. The success of the Hydro enterprise inspired a campaign for the development of a publicly owned network of electric-radial railways. Although it was a lively issue of Ontario politics for several years, the project did not materialize and the automobile soon rendered it impractical and unnecessary.

A long-standing controversy over the teaching of English in schools whose students were French Canadians came to a head during World War I. The courts, in effect, upheld regulations issued in 1912 by the Department of Education to enforce English instruction in all publicly supported schools in bilingual communities. Conflict did not entirely abate until new regulations acceptable to all races were adopted by the Ferguson Ministry in the late 1920's.

In 1917, the Teachers' Superannuation Fund was established to provide retirement allowances for teachers and inspectors on the basis of contributions by them and the Provincial Government. The Legislature later made school attendance compulsory up to the age of 14.

Hearst maintained his personal interest in the development of Northern Ontario. In 1918, he induced the Legislature to appropriate \$6 million for this purpose. The Government gave settlers direct encouragement in the form of money advances and supplies of seed and livestock. New roads and bridges were built, schools were erected and creameries and other industries were established.

The final year of World War I also witnessed the extension of the Provincial franchise to all women over 21. The Legislature tightened the regulations covering the employment of women and children in factories and shops, and set up the Department of Highways.

The war aggravated and underlined dissatisfactions and inequalities, and inspired a general desire for a "fresh start" in the post-war period. Out of this attitude sprang support for such movements as the United Farmers of Ontario, the Independent Labour Party and the Ontario section of the Canadian Labour Party, which were preparing to take an active part in Provincial politics and nominate candidates in the first post-war general election. The U.F.O., while speaking for agriculture specifically, was also in favour of prohibition and free trade. The Independent Labour Party sought unemployment and social insurance and the provision of free medical care and unlimited educational opportunities.

In 1919, Sir William Howard Hearst asked the electorate to renew his mandate. A prohibition referendum was associated with the election.

The balloting produced a sharp upset in the Legislature. The U.F.O. secured 44 seats, the Liberals, 29, the Conservatives, 25, and the labour group, 11. One Soldier M.P.P. and one Independent were elected. The voters also expressed themselves in favour of prohibition.

The U.F.O. went outside their elected members and selected E. C. Drury of Simcoe County, son of a former Liberal Minister of Agriculture, to be their leader. Eschewing an alliance with either of the traditional parties, they entered into a coalition with the labour group and formed a Ministry.

Meanwhile, Hearst retired from public life and G. Howard Ferguson became the leader of the Conservative Party.

The problems facing Premier Drury were complex. His initial hold on the Legislature was tenuous and, as time went on, divisions arose within the ranks of his supporters. Such matters as Hydro policy, radial railways, the enforcement of prohibition and the financial affairs of the Province generated lively controversy. Nevertheless, he brought forward a number of programs in the realms of agricultural development, road construction, and social and industrial legislation.

The Government promoted the organization of co-operatives in the dairy and fruit industries and provided easier credit facilities for farmers. A large-scale "good roads" policy was inaugurated, with the Province assuming a number of county roads as Provincial highways and contributing heavily toward the construction and maintenance of the remaining county and township roads. Financial



ERNEST CHARLES DRURY
1919-1923

assistance to local school boards was increased and the age of compulsory school attendance was raised to 16.

Drury established a separate Department of Mines under Henry Mills. One of the demands of Labour was met through the creation of a Department of Labour and Health under W. R. Rollo. In 1920, the Minimum Wage Board was set up within the latter department and given the responsibility of enforcing fair wages for female employees in the Province. A new system of aid for dependent mothers was launched under The Mothers' Allowance Act. It was based on studies carried out by the Hearst administration.

While the development of Ontario Hydro proceeded apace, relations between Sir Adam Beck and the Government became strained over the Commission's very substantial expenditures and the radial projects. Finally, a Royal Commission was appointed by the Government to enquire into Hydro's affairs. Meanwhile, the Government began to subsidize the extension of power into rural areas.

Public opinion began to be less favourable to prohibition. In the 1921 referendum, the "Dry" majority declined considerably. Evasions of the law became a difficult problem for enforcement officers. The Government's handling of prohibition came gradually under the critical fire of both the "pro" and "anti" factions.

In 1923, the electors dismissed the Drury government, according the Conservatives under G. Howard Ferguson,



GEORGE HOWARD FERGUSON
1923-1930

an overwhelming majority. Ferguson assumed the Education portfolio, W. F. Nickle became Attorney-General, Col. W. H. Price, Provincial Treasurer, and G. S. Henry, Minister of Public Works and Highways. Sir Adam Beck re-entered the Cabinet as a Minister without Portfolio.

Ferguson inaugurated a program of stringent economy and attained his goal of a balanced budget. Under his regime in the

Department of Education, the standards of teacher training were raised, as for example, with the establishment of the Ontario Training College for Technical Teachers in Hamilton. At the same time, teaching in the rural schools was improved. A striking contribution to the development of education in the Province was the provision of school cars for children who resided along the Canadian Pacific and Canadian National Railways in the northern portion of the Province.

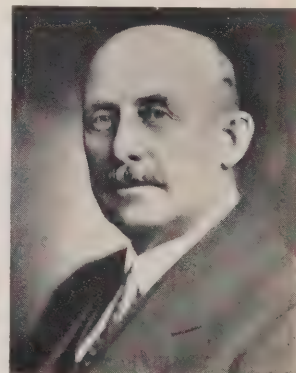
The Ferguson administration also sponsored considerable legislation in the fields of health and social welfare. In 1924, the Department of Labour and Health was split

in two. One of the first acts of the new Minister of Health was to begin the free distribution of insulin to needy diabetics. (Insulin had been produced only three years earlier by Doctors Frederick Banting and Charles Best at the University of Toronto.) Ontario participated in the old age pension scheme set up by the Federal Government. The Legislature passed The Old Age Pensions Act in 1929 under which the Dominion, Province and municipalities shared the cost of pensions for all needy persons 70 and over. In 1930, the last year of Ferguson's premiership, the Department of Public Welfare was created.

Advancement in agriculture, in hydro-electric development, in the opening up of Northern Ontario and in many other fields was also achieved. A comprehensive plan of reforestation for the Province was launched by The Forestry Act of 1927. Under the Ferguson Ministry, the Ontario Research Foundation was established to carry on research work and investigation, with a view to accelerating the development of Ontario's natural resources, and introducing advanced methods and processes into industry in the Province.

The Ferguson Government was returned to office in 1926 at a time when the subject of prohibition was a lively topic. Ferguson contended that bootlegging and other abuses which had emerged during prohibition were rampant. The Government and its position received an overwhelming endorsement. Accordingly, The Liquor Control Act was introduced in 1927, and the Liquor Control Board was given authority to issue annual liquor permits, subject to cancellation for abuse, to all citizens over 21. In 1930, the Legislature extended its term from four to five years.

Ferguson became High Commissioner for Canada in London in December of 1930 and George S. Henry succeeded him. Henry had been a member of the Legislature since 1913 and had served as Minister of Agriculture in 1918-19 and as Minister of Public Works and Highways since 1923. He made several changes in the Cabinet: he kept for himself the portfolios of Education and Highways and E. A. Dunlop became Provincial Treasurer, Leopold Macaulay, Secretary and Registrar, and T. L. Kennedy, Minister of Agriculture. W. E. N. Sinclair, who had been the leader of the Liberal Opposition since 1923, retired and was succeeded by Mitchell F. Hepburn, the youngest leader of the Liberal Party in Ontario's history.



GEORGE S. HENRY
1930-1934

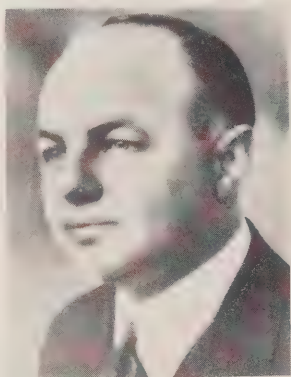
While the new Ministry was taking the oath of office, economic activity was slowing down and the "Great Depression" was settling its pall over the whole western world. Throughout the four years of the Henry administration, a balanced budget, employment, the relief of the unemployed and the erection of a framework of economic security for the Province were the vital issues.

Many municipalities fell into financial difficulties and had to be rescued. The Government sponsored job-making works projects, particularly on Northern Ontario highways. In 1932-33, the direct relief program was revised. The Mortgagors' and Purchasers' Relief Act mitigated some of the hardships and anxieties of home-owners who were having difficulty meeting their payments. Through The Ontario Marketing Act, 1931, and related legislation, the Government encouraged farmers to put their operations on the most rational basis obtainable and sought to help in the development of markets for their products.

The Timiskaming and Northern Ontario Railway system was completed to Moosonee during the Henry regime. In 1932, the Minister of Health announced that a cancer treatment centre, the first in Ontario, would be established at the Toronto General Hospital and that other centres were being planned for Kingston and London. Further improvements were made by the Government in The Old Age Pensions Act and The Workmen's Compensation Act.

The 1934 Provincial election produced one of the most decisive reversals in Ontario's political history. After 29 years in Opposition, the Liberals, under Mitchell F. Hepburn, were voted into office by a wide margin. Hepburn took over the Treasury himself, H. C. Nixon became Provincial Secretary—the same post he had occupied in the Drury Ministry. Others in the new Cabinet were: Peter Heenan, Minister of Lands and Forests; Duncan Marshall, Minister of Agriculture; Arthur W. Roebuck, Attorney - General and Minister of Labour; L. J. Simpson, Minister of Education; T. B. McQueston, Minister of Public Works and Highways; J. A. Faulkner, Minister of Health; David Croll, Minister of Public Welfare; Paul Leduc, Minister of Mines, and C. W. Cox, Minister without Portfolio.

The new Ministry had to face the same problems of unemployment and government financing which had so sorely plagued the preceding administration. A road-building program to provide employment opportunities in north-central Ontario was announced early in 1935. Soon,



MITCHELL F. HEPBURN
1934-1942

a major controversy arose over the contracts which a previous administration had entered into for the purchase of Quebec electric power. The Government in 1935 declared these contracts null and void. The contract cancellations continued to excite political contention and in 1937, as the need for additional power became apparent, new contracts were signed. The early months of the Hepburn regime also saw the establishment of the Department of Municipal Affairs, designed to assist local government in solving depression-induced financial and other problems. With the passage of The Industrial Standards Act, provision was made for the regulation of hours and conditions in industry across Ontario.

One of the main events of the year 1936 was a Federal-Provincial Conference in December. Sub-committees were formed to discuss such items as constitutional amendments, financial relationships, and unemployment and relief.

An important and far-reaching statute, assented to in 1936, brought the Province into the personal income tax field for the first time. The Federal Government agreed to collect the tax under an agency agreement. The municipalities withdrew from this area of taxation and, in compensation for their loss of revenue, began to receive from the Province a one-mill subsidy, calculated on their assessments. At the same time, the Ontario Government was the first to take advantage of Federal legislation under which Ottawa and the provinces could share in the cost of pensions for the blind. In August, 1937, an Order-in-Council provided a monthly payment of \$20 to all totally blind persons over 40 years of age. The Province also undertook, at this time, to relieve the municipalities of their share of the costs of old age pensions and mothers' allowances.

Improved machinery for the marketing of agricultural commodities by producer groups was created by The Farm Products Control Act, 1937. At the same time, the system of loans to farmers' co-operatives was broadened.

One of the most important measures of the 1938 session imposed compulsory pasteurization on all milk sold in the cities and towns of Ontario. Hepburn had campaigned personally for this legislation, citing the fact that unpasteurized milk was a source of bovine tuberculosis and that hundreds of children were suffering from the disease.

In the early months of 1939, the Legislature petitioned Parliament to repeal the Canada Temperance Act as it applied to Ontario. At the same time, it passed an unemployment insurance Act to make effective in the Province any scheme instituted by Parliament. Two years later an amendment to the British North America Act empowered the Government of Canada to bring a national plan into operation.

In March, 1939, as the overflowing galleries stood applauding, the party leaders in the Legislature united in a demand that Canada stand beside Britain in the pre-war

crises; the House, by resolution, called for a complete mobilization of Canada's resources, in the event of war.

By September, Canada was at war, and the Assembly met in an emergency session to pass legislation giving effect to the determination already so strongly expressed. The Attorney-General, responsible for civil security, sponsored the municipal units of the Volunteer Civil Guards, and enforced the Defence of Canada Regulations. The demands of the war industries called for increased efforts by the Department of Labour, particularly in the inspection and approval of plans for new buildings. To supply skilled workmen, the Departments of Labour and Education co-operated with the Dominion authorities in training programs which used the technical and vocational schools throughout the Province. The Hydro-Electric Power Commission increased its power deliveries substantially. The Agriculture and Labour Departments worked with the central Government to assure maximum production for farm and factory. Several Provincial hospitals and properties were transferred to the Dominion for wartime use. The wartime activity immediately took up the slack in the labour force; there was a marked drop in unemployment and consequently in relief expenditures. The year 1939 also saw the opening of the Toronto to Niagara Falls section of the Queen Elizabeth Way—the Province's first controlled access multi-laned highway—which had been commenced in 1933 under the Henry administration and then brought to completion under the vigorous guidance of T. B. McQueston as a major link in the Province's growing highway system.

In 1940, an amendment to The Ontario Corporations Act increased the levy on corporate income from two to five per cent. Another measure gave the Province the power to regulate all privately owned electrical companies in Ontario. To encourage greater production, a subsidy was provided for cheese and hogs. The Public Welfare Act was amended so that the Province could contribute to day nurseries caring for the children of mothers engaged in war work.

In January, 1941, a conference of the Canadian and Provincial Prime Ministers was held in Ottawa to consider the recommendations of the Royal Commission on Dominion-Provincial Relations. The recommendations were, however, unacceptable to several provinces. Then, in April, 1941, the Federal Minister of Finance requested all the provinces to withdraw from the personal and corporation income tax fields for the duration of the war and one year after, so that the Federal Government would have complete fiscal freedom in its management of the war effort. The Ontario Legislature subsequently suspended its right to tax in these fields and the Province accepted, in return, payments from the Government of Canada to make up for the loss of revenues.



GORDON D. CONANT
1942-1943

relations problems and bring in recommendations. As a result of this investigation, legislation was passed, officially recognizing the right of labour to bargain collectively. A Labour Court was set up to adjudicate between labour and management. A Social Security Committee examined the broad question of organizing, conserving and utilizing the resources of Ontario for the successful prosecution of the war effort. It also inquired into the problem of rehabilitating members of the armed forces at the conclusion of the war, and it examined existing social security legislation in Ontario and elsewhere.

An increase was made in Mothers' Allowances, protection was afforded members of the armed forces and their dependents against mortgage foreclosure, and the Ontario Cancer Treatment and Research Foundation was established.

H. C. Nixon, Provincial Secretary in the Hepburn and Conant Governments, became Premier in May, 1943, and held the office until the Provincial election in August, when the Progressive Conservatives, under the leadership of George A. Drew, assumed power.

The new Government's future was not at all certain, for in a Legislature of 90 seats, the Conservatives commanded only 39. The Co-operative Commonwealth Federation held 34, the Liberals 14, Labour two, and an Independent Liberal one.

Mr. Drew, leader of the Provincial Conservatives since 1938, had entered politics as an alderman in Guelph and had served as that city's mayor. In addition to the Premiership, he occupied the Education portfolio. His first Cabinet included Leslie M. Frost as Provincial Treasurer and

Mitchell F. Hepburn resigned as Prime Minister in October, 1942, although he retained the portfolio of Provincial Treasurer, and G. D. Conant, the Attorney-General, succeeded him. Several measures were passed under the new Ministry's auspices in the 1943 Session of the Legislature. A Select Committee on Labour under the chairmanship of James H. Clark was appointed to hear evidence on labour



HARRY C. NIXON
1943

Minister of Mines; Leslie Blackwell, Attorney-General; Col. T. L. Kennedy, Minister of Agriculture; George Doucett, Minister of Highways; Charles Daley, Minister of Labour; George Dunbar, Provincial Secretary and Minister of Municipal Affairs; George Challies, Minister without Portfolio; R. P. Vivian, Minister of Health and Public Welfare; W. G. Thompson, Minister of Lands and Forests.



GEORGE A. DREW
1943-1948

While Canada's war effort was of paramount importance during the first years of the Drew regime, the Government began early to lay plans for the post-war reconstruction and development of the Province.

During 1944, the Department of Planning and Development was created with Dana Porter as its first Minister. Its purpose was to collaborate with the Dominion, other provinces, municipal councils and the other Government Departments in Ontario, formulating plans to create, assist and maintain productive employment and development.

In the field of labour—a field which had made so striking a contribution to the war effort—legislation was introduced in 1944 to set the maximum number of work hours in the week and to provide vacations with pay. The significant feature of this measure was the stamp credit system whereby workers, even though transferring from one job to another, could receive allowances which would permit them to take annual vacations. In addition, an experimental agency to administer collective bargaining legislation was set up, the forerunner of the Ontario Labour Relations Board established in 1948.

A major advance was made in the educational field early in 1945. The basis for the distribution of school grants was completely changed to achieve greater equalization of the burden of education costs throughout the Province. The total amount of the grant was nearly tripled—from \$8.4 million to \$23.4 million. Improvements were made in the provisions for teachers' superannuation. The Government began a program of increased aid to the universities. The Provincial Institute of Mining at Haileybury was also set up, the first technical institute to serve the needs of the northern parts of the Province.

In June, 1945, as World War II drew to a close, a general election was called in the Province. The Conservatives increased their representation in the House to 66, while the combined Liberal, CCF, Liberal-Labour and Labour Progressive Opposition was reduced to 24 seats. With the substantial working majority thus gained, the Conservatives were in a strong position to carry out their program of peacetime adjustment.

With the end of the war, the Province embarked upon the formidable task of overtaking the huge backlog of arrears in highway construction and maintenance which had been accumulated during the war years. Before 1947, the Government had given road grants to county and township municipalities only. In that year, conscious of the burden being carried by urban municipalities, the Legislature amended The Highway Improvement Act in order to subsidize the road and street expenditures of cities, towns and villages, as well. Accordingly, Provincial grants for municipal roads rose from \$8.9 million in 1946-47 to \$14.8 million in 1947-48. During that same year, 1947, the Unsatisfied Judgment Fund was brought into being.

As World War II came to an end, Ontario found itself faced with an increasingly serious housing shortage, stemming from the low level of construction activity before and during the war and the expanding population. To foster the construction of housing, the Legislature in 1948 enacted The Housing and Development Act. Provision was made for a Provincial second mortgage scheme under which funds were lent to supplement National Housing Act mortgages. When the program was superseded in December, 1949, by a Federal plan, \$16.6 million had been borrowed by the public.

Educational facilities were improved and extended and by 1948 grants to school boards had reached over \$34 million. Technological schools such as the Provincial Institute of Textiles and the Lakehead Technical Institute were established at Hamilton and Port Arthur, respectively. In Toronto, the Canadian Vocational Training facilities were reorganized into the Ryerson Institute of Technology, one of the continent's outstanding vocational and technical training centres.

During this period of rapid development, several improvements were made in the fields of health and social welfare. In 1946, The Public Hospitals Act extended Provincial aid to cover all public ward beds in the teaching group of hospitals, regardless of whether their occupants were indigent or self-paying. The following year, this scheme was applied to all hospitals in the Province, and, for the first time in Ontario's history, capital construction grants were paid to hospitals. Simultaneously, a program for the expansion and modernization of mental institutions was initiated. Pensions for the blind and the aged were increased and their terms improved. In 1946, Ontario became the first province to subsidize the operation of licensed municipal day nurseries.

During 1947 and 1948, the Government operated a unique immigration program in which some 10,000 persons were air-lifted from the United Kingdom to Ontario under the Province's auspices.

An important aspect of Ontario's agricultural policy in the post-war period was the improvement of marketing conditions for the farmer, accomplished under The Farm Products Marketing Act (rewritten in 1946) and The

Co-operative Marketing Loans Act. A total of five new marketing plans, including the Hog Producers' Marketing Plan of 1946, came into effect during the period 1943 to 1949. This period also saw the first moves toward construction of the food terminal outside Toronto which has since provided modern facilities for all stages of wholesale fruit and produce marketing.

Steps were taken to promote the conservation and development of Ontario's natural resources. In 1946, the Royal Commission on Forestry, with Major-General Howard Kennedy as sole commissioner, was appointed to make a survey of the forest situation in the Province. Most of the Commission's recommendations have since been implemented. In 1947, The Forest Management Act was passed and the Government began to inventory Ontario's forest resources, a project which was finally completed in 1951. The Department of Mines, during this period, pioneered in aerial survey techniques and was instrumental in the discovery of such mineral deposits as the iron ore body at Marmora in Eastern Ontario. The Conservation Authorities Act of 1946 authorized the establishment of conservation authorities to carry out unified programs of flood control, and agricultural and wild-life conservation.

Premier Drew re-asserted Ontario's fiscal independence of the Federal Government at the Dominion-Provincial Conferences of 1945 and 1946. Instead of signing a tax rental agreement, the administration elected to retain possession of the Province's rights in the major direct tax fields.

Two new Government Departments were established during the immediate post-war period. Recognizing the increasing importance of the tourist trade, the Government created the Department of Travel and Publicity in 1946. In that year, as well, the Department of Reform Institutions was set up. It combined responsibilities previously shared by the Provincial Secretary and the Departments of Health and Welfare. In 1947 and 1948, four industrial farms plus two new reformatories were established. A reorganization of penal policy and administration was undertaken and the emphasis was placed on rehabilitation rather than punishment.

George A. Drew resigned as Prime Minister of Ontario on October 19, 1948, in order to assume his new duties as leader of the Federal Progressive Conservative Party. Thomas L. Kennedy, the Minister of Agriculture, who had first been elected to the Ontario Legislature in 1919, was sworn in as



THOMAS L. KENNEDY
1948-1949

Premier on the same day by Lieutenant-Governor Ray Lawson. Although Mr. Kennedy was leader of the Ontario Government for less than a year, a considerable volume of legislation relating to welfare, education, highways, and other governmental services was implemented during his tenure.

In October, 1948, mothers' allowances were increased; early the next year, the old age pension, the cost of which was shared by the Federal and Provincial Governments, was raised to \$40 a month. On April 1, 1949, The Homes for the Aged Act became law and the Province began to contribute 50 per cent of the cost of maintenance and new construction of municipal homes for the aged. The Children's Protection Amendment Act, passed at the same time, provided substantial assistance for Children's Aid Societies.

The terms and conditions of teachers' superannuation were improved and broadened. Through amendments to The Highway Improvement Act, road subsidies payable to urban municipalities were increased. Under The Police and Fire Departments Act, regular grants were provided for municipal police and fire departments.



LESLIE M. FROST
1949-

On April 27, 1949, Leslie Miscampbell Frost was elected to the leadership of the Progressive Conservative Party, and on May 4, 1949, he became the sixteenth Prime Minister of the Province of Ontario. Mr. Frost had entered the Legislature in 1937 and had been Provincial Treasurer since 1943, which post he continued to hold in the new Cabinet. Col. Kennedy remained in the Government as Minister of Agriculture.

Other members of the Cabinet were: Dana Porter, Attorney-General and Minister of Education; G. H. Challies, Minister without Portfolio; George H. Dunbar, Minister of Municipal Affairs; G. H. Doucett, Minister of Highways; Charles Daley, Minister of Labour; Russell T. Kelley, Minister of Health; G. A. Welsh, Provincial Secretary; W. A. Goodfellow, Minister of Public Welfare; William Griesinger, Minister of Planning and Development; H. R. Scott, Minister of Lands and Forests; Louis P. Cecile, Minister of Travel and Publicity; W. S. Gemmell, Minister of Mines; William E. Hamilton, Minister of Reform Institutions. The Conservative Party by virtue of its victory in the 1948 election, held a substantial majority in the Legislature.

In the decade which followed, Ontario's development proceeded at a spectacular pace. Stimulated by an excep-

tionally high birth rate and a heavy flow of immigrants, the Province's population reached six million late in 1959, mounting on the average by 157,000 per year or about 3.1 per cent. Established industries enlarged their operations, some many times over, while new undertakings sprang up in all parts of Ontario. New and expanded communities throughout the Province created demands for Provincial and municipal services on an unprecedented scale, the provision of which facilitated and encouraged further socio-economic growth. The expanding population, accompanied by an intense urbanization of Ontario life, also called forth greater emphasis on health and welfare measures.

Population growth, coupled with the increasing complexity of modern life, underscored more indelibly than ever the importance of educational services in the Provincial Government's overall service picture. Accordingly, reforms were introduced on a continuing basis in order to keep educational programs abreast of requirements. By 1950, it was apparent that the school aid plan of 1945 which had been designed to meet the great post-war influx of children, was no longer entirely satisfactory. The plan was therefore modified to take account of the substantial changes that had occurred in local population and assessment. The grant schedules for secondary schools were revised and greater aid was provided for school boards faced with capital expenditures. In 1955, the Province instituted supplementary per pupil grants in addition to all other payments. In succeeding years these and other grants were increased on several occasions.

As the burden of education costs increased, it became imperative to achieve a more equitable distribution of grants as between the hundreds of school boards of the Province. This involved the equalization of assessments across Ontario, since the assessments formed the basis of the grant system. At the same time, a radical new provision—a growth-need factor—was incorporated into the grant structure, as were a number of other refinements and adjustments. The growth-need factor afforded additional aid to school boards in rapid population growth areas, which were encountering extraordinary transportation costs and high debt charges on school construction.

In addition to its primary and secondary school programs, the Province evolved measures for the enlargement and improvement of the system of technical schools, teachers' colleges and universities, all of which meet Ontario's educational needs at a higher level.

During the last 10 years, steps have been taken to strengthen the position of the municipalities and help them solve their problems. In 1952, under The Municipal Tax Assistance Act, the Legislature instituted a system of payments to municipalities in lieu of taxes on Provincial and certain power commission properties. In the following year, the Municipality of Metropolitan Toronto was established. In order to protect and bolster the autonomy

and fiscal strength of local government, the Province adopted a policy of combining indirect aid in the form of services, with direct assistance in the form of conditional and unconditional grants. A system of unconditional per capita grants was introduced in 1954 and broadened in 1957; in the latter year, an additional grant was provided to defray the costs of the local administration of justice. With the inauguration of the Ontario Hospital Insurance Plan, the Government took over from the municipalities most of the burden of indigent hospitalization costs.

In recent years, the Ontario Government has undertaken special measures, associated with its employment-creating policies, to assist municipalities both through sizeable reimbursements for direct labour costs on special works projects and (in co-operation with the Federal Government) through payment of 80 per cent of direct relief costs. In addition, local government is aided by the Municipal Improvement Corporation, which came into being in 1950 to purchase from Ontario municipalities debentures issued by them for capital undertakings. They are thereby assured of ready access to capital funds whatever may be the condition of the general money market.

Improvements were made in the Province's labour laws, and the Legislature enacted pioneer measures in the field of human rights. In 1950, The Labour Relations Act was rewritten to continue and reinforce the operation of the Labour Relations Board, reconstituted in 1948. At the Session a year later, The Fair Employment Practices Act and The Female Employees' Fair Remuneration Act were passed. Three years later, the Ontario Legislature approved The Fair Accommodation Practices Act which provides that public facilities, accommodation and services must not be denied anyone on account of race, creed, colour, nationality, ancestry or place of origin. In January, 1959, the Anti-Discrimination Commission was set up to co-ordinate the administration of Ontario's fair practices legislation and carry out an educational program.

The model Workmen's Compensation Act, enacted in 1914, has been improved by amendments and regulations passed since 1951 to give it broader coverage, to raise the maximum annual earnings on which compensation is based, to reduce the waiting period, to increase the funeral allowances in case of accidental death and to increase lump-sum payments to dependents.

The huge highway-building program, undertaken at the war's end, has been continued and expanded. The Ottawa Queensway, Highways 400 and 401, the transformation of the Queen Elizabeth Way to a fully controlled access thoroughfare and the access road development in the North to places such as Red Lake, Pickle Crow, and Elliot Lake, are examples of the Province's activity in this field. In addition, the last gap in Ontario's section of the Trans-Canada Highway, built in co-operation with the Federal Government, was opened to traffic last year. The Province's first skyway—the Burlington Bay Skyway—was

completed in 1958 while a second, over the Welland Canal at Homer near St. Catharines, is under construction. With the opening of the St. Lawrence Seaway in 1959, transport by water into the hinterland of the Province was greatly facilitated as both ocean-going vessels and large lakera with drafts of up to 27 feet were enabled to navigate the Great Lakes system.

In order to meet the rising power requirements of Ontario's growing urban and industrial economy in the post-war period, the dependable peak capacity of Ontario Hydro's generating stations has been increased to a current 5.9 million kilowatts—five times the level in 1945. In recent years, as the Province's remaining major water power sites were harnessed, the development of both conventional thermal-electric and nuclear-electric generating resources has received increasing attention. Thus, the Nuclear Power Demonstration on the Ottawa River, a small experimental station, will come into operation this year, while a second and larger nuclear station, at Douglas Point on Lake Huron, is scheduled for service early in 1965. In addition to the greatly increased supplies of energy derived from hydro-electric and thermal-electric generating plants, a major new source of energy in the form of natural gas became available to the Province with the completion of the trans-Canada pipeline in late 1958.

During the post-war period, Ontario's population increased by more than 50 per cent to reach an estimated 6,167,000 by the end of 1960. This represents an average annual increase of some 140,000 or 2.8 per cent—a rate considerably higher than the 2.3 per cent for the rest of Canada and 1.7 per cent in the United States. Enrolment in both elementary and secondary schools has more than doubled to 1,126,400 and 262,800, respectively, while attendance of undergraduate students at universities has risen by more than 40 per cent to 28,700 and the number of graduate students has grown by nearly 80 per cent to 2,600. One of the major factors in the Province's continued economic growth since World War II has been the huge capital formation. In the last 15 years, \$31 billion has been invested by both private and public sources to increase the Province's stock of physical assets including housing, transportation facilities, power plants, schools, hospitals and industrial machinery and equipment.

In the last decade, the Province of Ontario has enacted a number of measures in the general field of health and welfare, chief among them being the creation of the Ontario Hospital Care Insurance Plan. After thoroughly

investigating hospital insurance for several years, the Government of Ontario, beginning in 1955, pressed for the establishment of a Federal-Provincial partnership arrangement which would provide hospital insurance on a nation-wide basis. Such a scheme was finally evolved, and Ontario's Hospital Care Insurance Plan went into operation on January 1, 1959.

In 1951, the Province began making grants to religious, charitable and fraternal organizations to help them care for infirm and needy persons. The next year, in co-operation with the Federal Government, it undertook to provide Old Age Assistance Allowances to needy elderly persons 65 to 69 and pensions to needy disabled persons 18 to 65. The Mothers' and Dependent Children's Act, passed in 1957, incorporated previous measures and added several new benefits, thereby providing allowance coverage for almost all types of dependent heads of families.

The Province of Ontario, which did not choose to enter the tax rental agreements with the Federal Government in 1947, decided to accept the "yield formula" proposed at the Dominion-Provincial Conference in 1950, and to enter into the tax rental agreements for the period 1952 to 1957. In 1957, the Province signed a new agreement renting only its personal income tax rights to the Federal Government. It retained its power to levy its own corporation income tax and imposed such a tax in 1957.

Since 1949, a number of changes have taken place in the structure of the Ontario Legislature and Government. The Legislature's membership was raised in 1955 from 90 to 98. In 1956, the Department of Economics was created to study, analyze, make recommendations and advise on economic and financial conditions, trends and policies, and on fiscal relations between the various divisions of government. In 1957, matters having to do with the users of the roads, as distinct from highways and roads themselves, were separated from the Department of Highways and lodged with the new Department of Transport. In 1959, the Legislature established the Department of Energy Resources to study and deal with various phases of energy production and distribution.

Premier Frost, in 1951, secured 79 of the 90 seats in the Legislature and, in 1955, 84 of the 98. On June 11, 1959, the people of Ontario went to the polls again and gave the Frost Government a further mandate. The Progressive Conservative Party secured 71 seats, the Liberal Party, 22 and the CCF, five.

A Chronology of Major Events in Ontario

- 1611 Etienne Brulé was first European to enter what is now Ontario.
- 1613 Champlain ascended the Ottawa River.
- 1615 Champlain explored Lake Nipissing, Lake Huron and Lake Ontario.
- 1622 Brulé discovered Lake Superior.
- 1640 Lake Erie discovered by Chaumonot and Brébeuf.
- 1649 Murder of Fathers Brébeuf and Lalemant and massacre of the Hurons by the Iroquois.
- Marquette founded mission at Sault Ste. Marie.
- 1670 Hudson's Bay Company given charter to trade in all lands draining into Hudson Bay.
- 1673 Fort Frontenac built at Catarqui (Kingston).
- 1678 Father Louis Hennepin visited Niagara Falls.
- 1749 Fort Rouillé built on Lake Ontario at Toronto.
- 1759 British took Fort Niagara. French defeated on Plains of Abraham. Capitulation of Quebec.
- 1760 Capitulation of Montreal. Military rule set up in Canada.
- 1763 Treaty of Paris by which Canada was ceded to Great Britain.
- 1774 Quebec Act passed.
- 1775 Outbreak of American Revolution; Canada invaded by Montgomery and Arnold.
- 1776 Sir Guy Carleton defeated the Americans at Quebec.
- 1780 First Loyalist settlement on Niagara River.
- 1783 Kingston founded by United Empire Loyalists.
- 1784 By the end of the year, an estimated 10,000 U.E.L. settled west of Montreal in the region that became Upper Canada.
- 1791 Constitutional Act; Province of Quebec divided into Upper and Lower Canada. First Chief Justice of Ontario, William Osgoode, appointed.
- 1792 First Legislature of Upper Canada met at Newark, now Niagara-on-the-Lake. Colonel John Graves Simcoe appointed the first Lieutenant-Governor of Upper Canada.
- 1793 York (Toronto) founded by Simcoe. Ontario's first newspaper, *The Upper Canada Gazette*, founded at Newark.
- 1796 Government of Upper Canada moved from Newark to York.
- 1806 The population of Upper Canada reached 70,718.
- 1812 United States declared war. Detroit surrendered by Gen. William Hull to Sir Isaac Brock. Death of Brock and defeat of Americans at Queenston Heights.
- 1813 Americans burned York; Battles of Stoney Creek, Beaver Dams, Moraviantown and Crysler's Farm.
- 1814 Battles of Chippewa and Lundy's Lane. Treaty of Ghent ended the war.
- 1824 Upper Canada's population had more than doubled in the last 18 years, reaching a total of 150,066.
- 1826 Founding of Bytown (Ottawa).
- 1827 Royal Charter granted for King's College, forerunner of The University of Toronto.
- 1829 Welland Canal opened to navigation.
- 1834 First Ontario city charter granted to Toronto (formerly York); William Lyon Mackenzie elected mayor.
- 1837 Grievances in Upper Canada led to rebellion under leadership of W. L. Mackenzie; rebellion crushed.
- 1838 Lord Durham appointed Governor-in-Chief to investigate causes of rebellion.
- 1839 Lord Durham's Report submitted to Parliament; report advocated union of Upper and Lower Canada, responsible government, municipal institutions and various reforms. Lord Sydenham arrived in Canada as Governor-in-Chief.
- 1841 Union of the two Provinces of Upper and Lower Canada as the Province of Canada, with Kingston as the capital.
- 1842 Opening of Queen's College, Kingston.
- 1843 Opening of King's College, Toronto.
- 1844 Seat of Government moved from Kingston to Montreal. *The Globe* founded in Toronto by George Brown.
- 1846 First telegraph in Province operated between Hamilton and Toronto. Hamilton incorporated. Organization of common school system.
- 1849 Signing of Rebellion Losses Bill; full responsible government achieved, with Robert Baldwin and Louis H. Lafontaine joint first ministers. Municipal Act set up present system of local government. Parliament Buildings at Montreal burned and Legislature resolved to meet alternately at Toronto and Quebec.
- 1854 Reciprocity Treaty signed with United States. Secularization of the Clergy Reserves. Abolition of seigneurial tenure.
- 1855 Government moved to Toronto.
- 1856 Legislative Council (Upper House) of Canada made elective. Opening of Grand Trunk Railway from Montreal to Toronto.
- 1857 Queen Victoria chose Ottawa as capital of the Province of Canada.
- 1860 Grand Trunk Railway completed.
- 1864 John A. Macdonald and George Brown formed a Coalition Government to promote federation of British North America. Conferences at Charlottetown and Quebec.
- 1866 Termination of Reciprocity Treaty by United States. Fenian Raids. Legislature met for first time in new Parliament Buildings at Ottawa.
- 1867 July 1, British North America Act came into force, joining the Provinces of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate Provinces named Ontario and Quebec. Toronto chosen Provincial capital. December 27, first Legislative Assembly of Ontario; membership, 82; John Sandfield Macdonald, Premier.
- 1871 Act passed setting aside \$1,500,000 for the building of railways. Edward Blake, Liberal, became Premier. Ontario's population had increased more than tenfold in less than 50 years, and reached 1,620,851, 46 per cent of the Dominion total.
- 1872 Dual Representation Bill passed prohibiting members from sitting in both the Federal and Provincial Parliaments. Oliver Mowat succeeded Blake as Premier.
- 1873 Municipal Loan Fund Act passed. Act allocated Provincial surplus for payment of municipal Loan Fund debts.
- 1874 Ballot introduced into Provincial elections. Ontario Agricultural College opened at Guelph.
- 1875 Licence Act took control of liquor licences away from municipalities and placed them in the hands of a board of commissioners appointed by the Government.
- 1876 Alexander Graham Bell operated world's first long distance telephone, Brantford to Paris, Ontario. Department of Education created to take over control of education system from Council of Public Instruction.
- 1879 Standard Time system worked out by Sir Sandford Fleming. Canadian National Exhibition instituted at Toronto.
- 1881 Ontario Judicature Act remodelled judicial system of Province.
- 1883 Huge copper-nickel deposits found near Sudbury.
- 1884 First free library opened in Ontario at Toronto. Ontario Factory Act afforded protection for persons employed in factories.
- 1888 Manhood Suffrage Act. Indian Titles Case settled the question of Ontario's boundaries which were to include the area north and west of Lake Superior.
- 1891 Ontario's population stood at 2,114,321 inhabitants.
- 1892 Succession Duties Act introduced the principle of the graded succession duty.
- 1893 Parliament Buildings at Queen's Park, Toronto, completed.
- 1895 Hydro-electric power produced at Niagara Falls.
- 1896 Oliver Mowat resigned as Premier to enter the Laurier Cabinet at Ottawa. A. S. Hardy became Premier.

- 1899 Hardy resigned and G. W. Ross became Premier.
- 1902 Construction of Timiskaming and Northern Ontario Railway authorized.
- 1903 An Act dealing with municipal power works made provision for municipalities singly or together to enter into undertakings to develop or transmit electrical and other power. Automobile Tax Act imposed a licence fee of \$2.
- 1905 Liberal Government defeated and the leader of the Conservative Party, James Pliny Whitney, became Premier of Ontario. Government-sponsored commission set up to investigate water power situation in Ontario.
- 1906 Hydro-Electric Power Commission of Ontario created; Adam Beck, Chairman. Railway and Municipal Board set up, predecessor of Ontario Municipal Board.
- 1912 Ontario obtained Patricia District.
- 1914 Wasdell Generating Station opened on the Severn, the first plant built and designed by H.E.P.C. Workmen's Compensation Act passed. W. H. Hearst succeeded Whitney as Premier.
- 1915 Electric-radial railways plan developed.
- 1916 Ontario Temperance Act removed all liquor licences in Province as a war-time measure. Bilingual school question reached Privy Council and the Ontario Government won the complete management of its schools. Houses of Parliament in Ottawa burned.
- 1917 Teachers' and Inspectors' Superannuation Act set up a fund consisting of payments by all teachers and inspectors throughout Ontario, supplemented by an annual grant from the Province. Construction began on the Queenston-Chippawa Generating Station (now called Sir Adam Beck-Niagara Generating Station No. 1).
- 1918 Northern and Northwestern Ontario Development Act set aside \$6 million for developing Northern Ontario. Franchise extended to all women 21 years and over, in Provincial elections.
- 1919 Ontario Temperance Act amended. Licence Board empowered to establish a head office in Toronto and appoint sales agencies in the Province. W. H. Hearst and the Conservatives defeated in the election and E. C. Drury, Leader of the United Farmers of Ontario, became Premier.
- 1920 Minimum Wage Board set up. Mothers' Allowance Act passed and a Commission appointed to administer it.
- 1921 Agricultural Development Act, Agricultural Development Finance Act, Ontario Farm Loans Act passed; provided assistance to farm population. Government began to subsidize rural electrification. Age of compulsory education raised to 16. Doctors Frederick Banting and Charles Best produced insulin for treatment of diabetes.
- 1923 E. C. Drury and U.F.O. defeated in Provincial election and G. H. Ferguson, Conservative, succeeded as Premier.
- 1924 Department of Health established.
- 1926 Dairy Products Act inaugurated cream grading.
- 1927 Under the Liquor Control Act, the Liquor Control Board of Ontario was given the authority to issue annual liquor permits to all citizens over 21 years of age.
- 1928 Ontario Research Foundation established to carry on research work and investigations with regard to the development of natural resources and the improvement of industry.
- 1929 Old Age Pensions Act passed. Pensions were payable to all needy persons 70 years and over, and the expenditure shared equally between the Federal and Provincial Governments.
- 1930 Department of Public Welfare created. Legislative Assembly Act extended the duration of the Assembly from four to five years. Ferguson appointed Canadian High Commissioner to London, England, and G. S. Henry succeeded as Premier.
- 1931 Ontario Marketing Act provided for the appointment of a Board to make a general survey of conditions existing in the agricultural industry. The decennial census recorded Ontario's population as 3,431,683.
- 1932 Timiskaming and Northern Ontario Railway, now Ontario Northland, completed to Moosonee. Special Committee appointed to study the unemployment relief situation which had resulted from the widespread economic depression of the period.
- 1933 Representation Bill reduced the membership of the Legislature from 112 to 90 members.
- 1934 Conservative Party defeated; Mitchell F. Hepburn, Liberal, succeeded G. S. Henry as Premier.
- 1936 Dominion-Provincial Conference discussed such items as financial relationships, unemployment and relief. End of Ontario's fiscal year changed from October 31 to March 31. Establishment of Department of Municipal Affairs. Province of Ontario entered the personal income tax field for the first time.
- 1937 Pensions of \$20 per month provided for all totally blind persons over 40 years of age by a Federal-Provincial agreement. Province relieved municipalities of their share of the cost of Old Age Pensions and Mothers' Allowances. Ontario Farm Products Control Act established a Provincial Farm Products Control Board with power to regulate grading and marketing.
- 1938 Pasteurization of all milk sold in cities and towns in Ontario made compulsory.
- 1939 Unemployment Insurance Act passed to make effective in Ontario any scheme instituted by the Federal Parliament.
- 1942 Ontario transferred corporation and personal income tax fields to Dominion Government for the duration of the war. Hepburn resigned as Premier and was succeeded by G. D. Conant.
- 1943 Collective Bargaining Bill officially confirmed the right of workers to bargain collectively. H. C. Nixon succeeded Conant as Premier. Liberals defeated in Provincial election; George A. Drew, Progressive Conservative, became Premier.
- 1944 Department of Planning and Development established. Hours of Work and Vacations with Pay Act passed, providing paid holidays for itinerant workers. Labour Relations Board set up—a forerunner of the present organization.
- 1945 Provincial assistance to school boards trebled and the method of distribution reorganized.
- 1946 Department of Reform Institutions set up, combining responsibilities previously shared by the Provincial Secretary and the Departments of Health and Public Welfare, now with a new emphasis on reform. Conservation Authorities Act authorized the establishment of authorities in various areas to promote unified programs of flood control, and agricultural and wildlife conservation. Royal Commission on Forestry (the Kennedy Report) made many recommendations later incorporated in legislation reforming the administration of this vital industry. The Province extended its aid to cover all public ward beds in the teaching group of hospitals.
- 1947 Chalk River Project N.R.X. atomic reactor went into operation. Road subsidies authorized by the Legislature for cities, towns and villages. The Unsatisfied Judgment Fund established to pay, up to certain limits, damages awarded by the courts in road accident cases where the person supposed to pay either cannot pay or cannot be found. The basic rate of Old Age Pension increased from \$20 to \$30 per month. The Forest Management Act incorporated many of the recommendations of the Kennedy Report for reforms in administration and enforcement of higher standards of forest management. Provincial aid made payable for all public ward beds in all hospitals. Capital construction grants paid to hospitals for the first time by the Province, and a great program of expansion and modernization began.

- 1948 Labour Relations Board established; superseded the pilot board set up in 1944. Ontario introduced a second mortgage plan to supplement the Federal National Housing Act. This plan remained in operation until December 1, 1949, and during that time, \$16.6 million loaned. Grants for community halls and athletic fields more than doubled. Mothers' Allowances increased. Thomas L. Kennedy succeeded George A. Drew as Premier.
- 1949 The Province assisted the municipalities with maintenance and construction costs of homes for the aged, contributed toward children's aid societies and made grants for municipal fire and police departments. The Province also improved road subsidies to the municipalities. The Provincial grant to children's aid societies was set at 25 per cent of subscriptions raised. (The fire and police subsidies were superseded in 1954 by the more generous Municipal Unconditional Grants.) The basic rate of Old Age Pensions was raised from \$30 to \$40 per month. Teachers' superannuation improved. Leslie M. Frost succeeded Thomas L. Kennedy as Premier.
- 1950 Education grants revised and increased. The Province was empowered to enter into partnership with the Federal Government for land assembly, rental housing and re-development rental housing schemes. The Province established the Ontario Municipal Improvement Corporation to help municipal development by purchasing municipal debentures.
- 1951 St. Lawrence Seaway Authority created to build St. Lawrence deep waterway. The Province amended the Workmen's Compensation Act to improve coverage and benefits, extended maintenance grants to hospitals, provided capital grants of \$1,000 per bed for new buildings for charitable institutions. Mining and community access road program initiated by the Ontario Government. Anti-discrimination legislation passed: women to receive equal remuneration for work equal to that performed by male employees. Also, no discrimination as to work and work conditions on the grounds of race, colour, ancestry, nationality or creed. Ontario's population reached 4,597,542.
- 1952 International Joint Commission authorized Canada and the United States to build a power project on St. Lawrence River; Ontario Hydro-Electric Power Commission named Canadian construction agency. Ontario's first television station began operation in Toronto. Ontario authorized payments to municipalities in lieu of real estate taxes on Provincial properties; the properties of the Province, its commissions and agents had previously been exempt. Ontario reformed the basis of payments to mining municipalities. This was the first such reform in 50 years, and resulted in a sharp increase in payments. The Province enacted legislation combining eight previous acts and modernizing the whole administration and taxation procedure concerning Ontario's forest industries. Renovation grants for hospitals inaugurated. Ontario introduced Disabled Persons' Allowances and carried them for two years before they became a Federal-Provincial responsibility. Old Age Assistance introduced for the 65-69 age group. Federal Government undertook payment of pensions to all over 70. Director of Probation appointed and build-up of a modern probation system begun. The Province provided loans to young farmers to help them establish their own farms.
- 1953 The Municipality of Metropolitan Toronto created by the federation of the City of Toronto and the 12 other municipalities in the Toronto Metropolitan Area. The Metropolitan Council composed of the Mayor, two controllers and nine aldermen from the City of Toronto, and the mayor or reeve from each of the other member municipalities. The Chairman is elected by the Council from among its own members or from outside the Council (The Metropolitan Corporation became responsible for its own finances on January 1, 1954).
- 1954 Construction commenced on the St. Lawrence Seaway and Power development. The Province began paying annual Unconditional Grants of \$1.50 to \$4.00 per capita to municipalities, dependent upon the type of municipality. The Province made illegal any discrimination in public facilities or services because of race, colour, creed, ancestry or nationality. Membership of Legislature increased to present 98.
- 1955 Ontario's first commercial mining of uranium occurred in the Elliot Lake-Blind River district, the free world's largest single uranium mining area. Special Home Care for Elderly Persons introduced. All Indians in Ontario made eligible for Old Age Assistance, Mothers' Allowances, and pensions for blind and disabled. Rehabilitation services set up by agreement with the Federal Government to train handicapped people and rehabilitate them for normal life. The Province introduced a supplementary per pupil grant for school boards and also instituted summer teacher-training courses for college graduates, to increase the supply of teachers.
- 1956 Ontario Hospital Services Commission established to provide administration and overall planning for the Hospital Care Insurance Plan in Ontario. Ontario Water Resources Commission established to promote an integrated pattern for development of water resources throughout the Province and to combat pollution. Construction of Canada's first nuclear power plant commenced at Rolphon by Ontario Hydro. Department of Economics established.
- 1957 Unconditional Grants to municipalities raised to between \$3.00 and \$5.50 per capita, including a \$1.00 per capita grant to assist in the administration of justice. Municipal Improvement Corporation's borrowing powers increased from \$50 million to \$150 million. Big increase in school board grants and a three-year plan launched for a greatly improved grants formula. December 1, 1957, the Province, as the result of an agreement with the Federal Government, undertook to reimburse the municipalities for 80 per cent of their outlays on direct relief. Increased allowances for mothers with dependent children, and the basic rate of Old Age Assistance raised to \$55 per month. Department of Transport created.
- 1958 The first units of the Robert H. Saunders-St. Lawrence Generating Station went into operation. Trans-Canada natural gas pipe line completed; Ontario communities served with Alberta natural gas. Provincial grants to school boards increased again and for the first time computed on an equalized assessment basis. The Ontario Government undertook to pay 70 per cent of the net operating cost of municipal homes for the aged, and 75 per cent of the expenses incurred by charitable institutions in providing accommodation for the aged. Formal financial agreement, dealing with the Hospital Care Insurance Plan, signed with the Federal Government. The Province doubled capital construction grants to hospitals at the same time as the Federal Government's grants were raised. The Province offered to share with the municipalities the cost of nursing and home-makers' services outside the hospitals. Provincial Student-Aid Loan Fund of \$3 million set up. The population of Ontario reached 5,803,000, 34 per cent of the Canadian total.
- 1959 Ontario Hospital Care Insurance Plan inaugurated on January 1, with participation by 5.5 million or 93 per cent of the population. Provincial education budget passed the \$200 million mark; basis for the computation of school grants broadened. Ontario scholarships established and bursary program widened to help students finance advanced education. Special grants provided to reimburse municipalities for hospital indigency expenditures. Provincial aid to municipalities exceeded \$300 million for the first time in history. Ontario Anti-Discrimination Commission appointed. Demerit points system put into operation as a further traffic safety measure. Department of Energy Resources

established. Implementation of the penal reform recommendations of the Fauteux Report commenced. The winter works program was broadened. The Federal-Provincial Committee of Ministers of Finance and Provincial Treasurers met in Ottawa on October 15-16 to consider inter-governmental fiscal problems. The population of the Province reached an estimated 6,040,000 on December 31, 1959.

1960 The Government's total expenditure program estimated at \$873 million for the fiscal year 1960-61; \$227 million for education. Grants to school boards and municipalities estimated at \$344 million. Investigation continued into agricultural marketing methods within the Province. Legislation was enacted to strengthen the organization and administrative machinery for the settlement of disputes and the provision of good labour-management relations. A Technical Committee on Portable Pensions was appointed. A reorganization of the Department of Municipal Affairs was carried out. Hospital facilities were improved. A one billion dollar expenditure on capital projects was undertaken by the Province in conjunction with municipal authorities. A new plenary Federal-Provincial Conference held its first session in Ottawa on July 25-27 to work out arrangements with which to replace the 1957-62 tax-sharing arrangements. York University was officially opened on September 12. With the completion of the section between the Agawa River and Marathon, the Trans-Canada

Highway, on September 17, was opened to traffic across the Province. On October 26-28, a further plenary session of the Federal-Provincial Conference was convened in Ottawa to discuss various suggestions for tax-sharing as well as ways and means of combating unemployment. The first purely Provincial Premier's Conference since June, 1926 was held in Quebec City, November 30 to December 2. The population of the Province reached an estimated 6,167,000 on December 31, 1960.

1961 On January 31, the Ontario Fluoridation Investigating Committee reported to the Legislature, recommending the enactment of legislation permitting the optional fluoridation of municipal water systems. At the third plenary session of the Federal-Provincial Conference in Ottawa, February 23-24, the Prime Minister of Canada outlined firm proposals concerning fiscal arrangements covering the five years 1962-63 to 1966-67. For the first time in Ontario's history, the Government introduced a Budget in excess of \$1 billion providing \$269 million for education, and raising Provincial assistance to municipalities and school boards to \$399 million. The Province introduced additional per pupil grants to school boards for the reduction of residential and farm real estate taxes. The Ontario Mental Health Foundation was established and legislation was enacted providing for the establishment of community hospitals for the short term treatment of mild mental disorders.

Departmental Organization and Activities of the Government of Ontario

AGRICULTURE

The Department of Agriculture, through its many branches and institutions, seeks to promote the prosperity and well-being of the agricultural industry and the Ontario economy generally. Its scientifically-based programs are designed to encourage a balanced and expanding agricultural development. Not only does the Department help the farmer to produce economically, but, through its grading and inspection services, it also protects the public and safeguards the quality of Ontario's agricultural products.

During the post-war period, the value of Ontario's farm output has doubled; in physical terms, production has risen 32 per cent since pre-war days. This advance has taken place in the face of a decline in the farm labour force which has, however, been more than counterbalanced by the introduction and successful use of farm machinery and improved scientific methods.

The evolution in technology and production since World War II, has been accompanied by rapid changes in economic conditions. In order to keep pace with these advances, the Department of Agriculture has implemented a major reorganization. The functions of the Department have been separated into a Division of Marketing and a Division of Production.

The *Division of Marketing* which co-ordinates all marketing activities and regulates the marketing of farm products produced in Ontario, administers The Farm Products Marketing Act, The Farm Products Containers Act, The Co-operative Loans Act, The Farm Products Grades and Sales Act, The Plant Diseases Act and The Milk Industry Act. The administration of the Division includes the supervision of the Farm Products Marketing Board, the Co-operative Loans Board, the Market Development Branch, the Farm Products Inspection Service, the Ontario Food Terminal Board, the Ontario Stock Yards Board, the Dairy Branch and the Milk Industry Board of Ontario. At present there are 17 Farm Marketing Plans in operation covering most of our farm products. Over 70 per cent, or 100,000 of the 140,000 farmers in Ontario are members of one or more farm marketing boards and over 50 per cent, or some \$375,000,000 of the annual cash income of \$750,000,000 to the farmers in Ontario is now received through farm marketing boards. The placing of all branches and services concerned with marketing under a single administration will make for more efficient service in the vital field of marketing.

The *Division of Production* comprises six branches—the Livestock Branch, Field Crops Branch, Agricultural and Horticultural Societies Branch, Extension Branch,

Farm Economics and Statistics Branch, and Information Branch.

The *Extension Branch* of the Department of Agriculture includes five services—the Agricultural Representative Service, the Home Economics Service, the Agricultural Engineering Extension Service, the Fruit and Vegetable Extension Service and the Tobacco Extension Service.

The Extension Branch maintains offices in each county and district of the Province. Its personnel consists of 54 Agricultural Representatives, 14 Associate Agricultural Representatives, 17 Assistant Agricultural Representatives, plus a clerical staff. As well, the Home Economics Service has a staff of Home Economists and specialists serving every county and district in Ontario. The 20 specialists of the Agricultural Engineering Service give assistance in connection with farm drainage, machinery and buildings. The Fruit and Vegetable Extension Service with twelve specialists and the Tobacco Extension Service with three, work in those parts of Ontario that are devoted to their respective products.

These specialists promote a diversity of programs, are a source of information on the latest techniques and developments, sponsor Junior Extension activities and act, generally, as advisors to the farm community. In addition—through the Home Economics Service—the Branch offers to the women of rural Ontario a program of practical home economics education, and works closely with the Federated Women's Institutes of Ontario.

The Department's research and education programs on weeds, insects, plant diseases, weed control and land utilization have been effective in increasing yields of grain and forage crops and have been of inestimable value to the Department's program of soil conservation. These activities are administered by the *Field Crops Branch*, which also implements programs of pasture improvement and crop testing. The results provide a remarkable demonstration of what can be accomplished by the application of modern techniques.

Many steps have been taken to advance the livestock industry in Ontario. This branch of agriculture has become increasingly important as a result of the growth of urban markets. The *Livestock Branch* is responsible for the selective breeding of livestock, the Department's licensing and grading requirements, livestock health programs as well as a closely supervised artificial insemination program. During 1958-59 the Ontario brucellosis control program entered its final phase; it will be continued in 1960 with the cost of calfhood vaccination being borne

by the Government. The quality of Ontario cattle is further ensured through the beef cattle registry program. Under this plan, beef bulls are tested at the Ontario Agricultural College, the Kemptville Agricultural School, and the Western Ontario Agricultural School where information is obtained on the performance of individual herd sires. Under The Warble Fly Control Act, grants are made to townships to assist in the cost of treatment for all cattle.

The *Farm Economics and Statistics Branch*, established in 1948, has published, after an exhaustive analysis of farm business records, detailed data covering almost every aspect of the agricultural industry. This includes information on production costs, the relation of production practices to net returns, marketing procedures and many other facets of farming. The aim of the work is to help farmers put their operations on a thoroughly business-like and more profitable basis.

The *Agricultural and Horticultural Societies Branch* administers The Agricultural Societies Act, The Horticultural Societies Act and The Community Centres Act. The sponsoring of Fairs by agricultural societies has been the Provincial Government's practice since 1830, when an act was introduced granting aid to these organizations. The Branch also provides valuable services under The Community Centres Act, not only to rural residents, but to all citizens of Ontario. Since 1948, assistance for the erection of a community centre in a municipality or township has been available to a maximum amount of \$5,000. In 1949, aid was extended to cover skating rinks and arenas and, by amendment in 1951, assistance was made available for the construction of swimming pools. The grants rose from a small amount in 1942-43 to a level of nearly \$500,000 in 1949-50. Province-wide needs in this connection have now been met to a considerable extent, so that in recent years smaller annual outlays have sufficed to cover the requirements. In 1959-60, \$343,718 was spent for these purposes.

The *Information Branch* provides, through the mass media (press, radio and television) and publications, timely information dealing with agriculture, gardening and home-making.

The institutions maintained by the Department for formal agricultural education have experienced considerable growth and increasing prestige in recent years. The *Ontario Agricultural College* and the *Ontario Veterinary College* are continually expanding their regular curricula, extension services and research programs to deal with the numerous phases of agriculture. The largest proportion of the Department's agricultural research program is conducted at the *Agricultural and Veterinary Colleges*. *Macdonald Institute*, over the past few years, has enlarged its program and is now giving a four-year course leading to a degree in home economics, as well as a one-year diploma course in home economics. These three institu-

tions co-operate on a great many projects in the interests of agriculture and rural living.

The *Kemptville Agricultural School*, located at Kemptville, and the *Western Ontario Agricultural School* at Ridgetown give two-year courses in agriculture. They serve as centres for practical agricultural education in the areas in which they are located. Considerable work is carried out in the testing of crops, soils, fertilizers, insecticides and fungicides. In addition to the two-year course in agriculture, the Kemptville Agricultural School gives special courses in dairying and home economics.

At the Horticultural Experiment Station at Vineland, and its Sub-station at Simcoe, much of the research and experimental work in fruits and vegetables for the Province is conducted. The Horticultural Products Laboratory also located at Vineland is charged with the responsibility of research on consumer products resulting from the production of fruits and vegetables.

Research with respect to the technical aspects of agriculture as well as in the fields of marketing and distribution of farm products is becoming increasingly important and is receiving growing emphasis in the Department's Branches and in the educational institutions under its jurisdiction. Plans are in preparation for the establishment of an *Agricultural Research Institute*, which will engage in and co-ordinate research in the Province concerning the marketing and production of farm products, including problems of transportation, storing, packaging, handling, quality control, pricing, family farming and vertical integration.

The *Junior Farmer Establishment Loan Corporation*, established in 1952, has been another important segment of the Department's service organization, making loans up to a maximum of \$15,000 to young farmers in the age group 21 to 35 who needed assistance in order to acquire their own properties. However, with the establishment of the Farm Credit Corporation by the Government of Canada it was considered that all farm credit requirements would be adequately covered and in January of 1960 the Ontario Corporation ceased to grant loans.

ATTORNEY-GENERAL

The Department of the Attorney-General is responsible for the enforcement of the laws applying within the Province of Ontario. In his further capacity as legal advisor, the Attorney-General advises the Government on legislation and represents it in litigation involving the Province.

His Department does not, of course, supply legal advice to private individuals in connection with their civil rights, nor does it possess any authority to override the courts in either civil or criminal cases. When it is of the opinion that a court decision is wrong, its recourse is in appeal to the higher courts.

During the post-war period, court and law enforcement facilities and services have been expanded and modernized

throughout the Province. At the same time, the Department has endeavoured to ensure a continuing improvement in the administration of justice at the local level. A significant step in this direction was taken in 1957 when the administration of justice by the municipalities was placed on a much sounder financial basis by the introduction, under The Unconditional Grants Act, of a per capita grant of \$1.00, payable to municipalities, to defray their costs incurred in the administration of justice. In general, the Province has thus assumed financial responsibility for the administration of justice in the municipalities. To maintain and strengthen the administration of justice, the office of *Co-ordinator of Justice Administration* was established in 1959.

The *Ontario Provincial Police* constitutes the Attorney-General's law enforcement arm functioning on the highways and in many sparsely populated areas as well as in the unorganized part of the Province. In addition, Provincial Police service is provided for more heavily populated municipalities on a contract basis under the provisions of Section 51 of The Police Act. There is close co-operation between the Provincial Police, its Criminal Investigation Branch, and the municipal police forces. The facilities of the Provincial Police are constantly available for crime detection and solution.

The strength of the Force rose from 500 in 1945 to about 2,160 in May, 1960. The Ontario Police College, opened in 1949, not only trains O.P.P. recruits, but also provides instruction for municipal police officers when required. The Department is at present making plans for the establishment of a Police College for the training of recruits and senior personnel for the police forces in Ontario.

A major activity of the O.P.P. is the enforcement of traffic laws on Ontario highways. In addition, there is a *Traffic Safety Office* which actively promotes safe driving in the Province. It conducts traffic court clinics for those guilty of violating traffic laws, although attendance is voluntary, while its staff members give lectures at schools and service clubs on matters pertaining to safe driving.

An important function of the Department of the Attorney-General is the administration of the Province's *Probation Service*. The probation program was initiated in 1952 with the appointment of a Director and 17 officers. The scope of the plan—financed with a budget of some \$74,000—was limited to the Toronto, Ottawa, Hamilton and London areas. At present, an annual budget of \$1,222,000 enables 142 officers to operate, on a Province-wide basis, a plan covering the supervision of more than 13,500 persons on probation.

The increase in probation staff has served to encourage the formation of juvenile and family courts. These courts, whose expenses are paid in part by the Department of the Attorney-General, provide the most modern methods for dealing with delinquent children. In 1960, over 4,370

such children were under the official probation supervision of juvenile courts, while another 4,500 young persons received special guidance from the probation staff without formally appearing in courts. The probation staff also counselled in 51,130 cases involving marital discord. Other jurisdictions are now adopting Ontario's probation system as a model.

Ontario's system has demonstrated that such a service helps a community solve problems attendant upon growth before they can inflict major damage. Through probation services, greater stability is maintained in a constantly changing society and the benefits of an expanding economy are more fully realized.

The *Legislative Counsel and Registrar of Regulations* is responsible for the major task of drafting all legislative measures introduced in the Ontario Legislature, advising the Government and the Legislature in all matters of a legislative nature and preparing the Revised Statutes of Ontario. Furthermore, in accordance with the provisions of The Regulations Act, 1944, the Registrar is required to review all regulations implementing enactments of the Legislature in order to ensure that they are made under proper authority, correctly drafted, and published in the *Ontario Gazette*.

The direction of the activities of Ontario's *Fire Marshal* is another responsibility of the Attorney-General. The chief function of the Office of the Fire Marshal is to co-ordinate and advise local authorities in their firefighting and fire prevention activities. In addition, the office investigates suspicious fires and assists in arson prosecutions. During 1960, 102 firefighters were given instruction in the most recently developed techniques at three regional centres, while an additional 2,292 students were given instruction by field training units. The Fire Marshal is responsible for ensuring that firefighting equipment is standardized throughout the Province. This is partly in the interest of civil defence. An important step was taken with the establishment at Gravenhurst in 1957 of the only fire college in Canada. Twelve advanced training courses of from one to three weeks in length were conducted there during 1959, for 305 students from 124 municipalities. Particular attention is given to the testing of new developments and the improvement of firefighting techniques and equipment.

Other important offices of the Provincial Government under the supervision of the Attorney-General are the Public Trustee, the Accountant of the Supreme Court and the Official Guardian. The *Public Trustee* is responsible for the care and management of various trusts, including intestate estates, estates of patients in Ontario Hospitals, special trusts, cemetery trusts and company trusts. He is the representative before the Courts of charitable interests and is charged with the responsibility of ensuring that trustees for unnamed charities carry out their duties in accordance with the law. Further, he deals with all prop-

erty which passes to the Crown by way of escheat. The *Accountant of the Supreme Court* is responsible for any money, mortgage, stock or security coming under the jurisdiction of the Supreme Court of Ontario. Such securities are entrusted to him for safekeeping and investment. Basically, the office can be regarded as the banker of the Supreme Court of Ontario. The *Official Guardian* safeguards before the courts the property rights of minors. He is the guardian of their estates, not of their persons. The *Ontario Securities Commission*, which reports to the Attorney-General, seeks to assure a high standard of integrity in the sale of securities in Ontario.

ECONOMICS AND FEDERAL AND PROVINCIAL RELATIONS

The unprecedented post World War II population growth and industrial expansion of the Province, together with the increasing complexity of the problems confronting the Ontario Government, led to the creation of the Ontario Department of Economics.

The forerunner of the Department was the Bureau of Statistics and Research established in 1943 as a branch of the Treasury Department. The Bureau not only undertook economic and statistical studies for the Treasury and other departments, but also prepared material for financial and other statements. In 1951, the Government established the Office of the Provincial Economist with duties of a special economic and fiscal nature, including the preparation of studies on Federal-Provincial tax-sharing arrangements, taxation, grants to municipalities and many other subjects. In 1954, with the retirement of the Provincial Statistician, the Bureau of Statistics and Research was merged with the Office of the Provincial Economist, and early in 1956, the Department of Economics was established.

The function of the Department is to study, analyze, advise upon and make recommendations on matters pertaining to

- (a) economic and financial conditions and trends;
- (b) economic and financial policy;
- (c) fiscal relations between governments; and
- (d) any other matters designated by the Lieutenant-Governor in Council.

The Department comes under the Provincial Treasurer and works closely with the Treasury Department but it also serves a general Cabinet function in economic and financial matters. Its work embraces a wide range of subjects. It not only studies, analyzes and advises upon economic, social and financial conditions and trends but it originates and participates in many comprehensive studies. For instance, it pioneered the studies on hospital insurance and portable pensions, and played a significant part in the studies leading to the creation of Metropolitan Toronto. The Department makes studies on Provincial grants to municipalities, elementary and secondary school boards

and to universities. It carries out economic analyses of population growth, school and university enrolment, capital formation, industrial production including agricultural, mining and forestry production, and employment. In its varied fields, the Department acts in an analytical, advisory and reporting capacity.

One of the most important functions of the Department is the carrying out of analyses and studies of Federal-Provincial and Provincial-Municipal fiscal arrangements. The Deputy Minister is the Government's nominee to the Federal-Provincial Continuing Committee on Fiscal and Economic Matters. A continuing review is carried out of tax-sharing arrangements and the various sources of revenue and expenditure. Projections are made of Provincial and Municipal taxation, ordinary and capital expenditures and debt.

The Department prepares submissions to various Royal Commissions and Committees such as the Royal Commission on Canada's Economic Prospects (1956), the Royal Commission on Energy (1958), the Agricultural Marketing Enquiry Committee of Ontario (1959), the Royal Commission on Transportation (1960), and the Royal Commission on the Automotive Industry (1960). It publishes the Ontario Economic Survey and over the past two years has prepared special economic studies on the Northeastern Ontario, Northwestern Ontario and Eastern Ontario regions.

The activities of the various Branches may be summarized as follows: The *General Economics Branch* is responsible for reviewing and analyzing economic and social patterns and the preparation of material to be submitted to Royal Commissions. The *Finance Branch* prepares reports and memoranda on matters relating to the Government's fiscal policy. It maintains a continuing review of the financial standing of the Province with special emphasis on its revenue, expenditure and debt. The bond market is kept under constant scrutiny. Other special studies of a fiscal nature are also undertaken. These have included questions of milk pricing, hospital insurance financing and the financial aspects of toll roads. The *Inter-governmental Relations Branch* undertakes studies of the economic and fiscal relations among the three levels of government—Federal, Provincial and municipal. Studies have been made, for example, of Federal-Provincial tax-sharing arrangements as well as of various aspects of education at both the Provincial and municipal levels. The *Economic Statistics Branch* compiles and analyzes economic and financial data. It maintains liaison with the Dominion Bureau of Statistics and edits Departmental publications. In co-operation with other units of the Department, the Branch prepares and publishes the Ontario Economic Survey as well as a series of special studies on the economic regions of Ontario. Various other special projects are undertaken including reports and memoranda pertaining to economic and financial aspects of the Province's natural resource industries.

EDUCATION

The Department of Education is responsible for administering the Province's comprehensive public educational program. In providing this vital service, the Ontario Government co-operates with and provides financial assistance to some 3,700 local school boards operating schools with a total enrolment of over 1,300,000. The fact that the school population in Ontario has more than doubled over the past 12 years has made the task of providing education of a high and equitable standard a formidable one. More than one-quarter of the total Provincial budget of over one billion dollars is devoted to education.

Essentially, the Department supervises the educational programs of publicly supported schools. It outlines the curricula for both elementary and secondary schools and provides an inspection staff to ensure that these programs are carried out, although, in many cases, school boards appoint their own inspectors who are responsible also to the Minister. The Department operates institutions for training elementary school teachers, has authority over the training of teachers for secondary schools, controls the certification of all teachers, establishes and operates Provincial Technical Institutes and administers schools for handicapped children. In addition, the Department gives advice and assistance to local community programs for adult education, maintains a central Provincial library and supervises the operations of public libraries throughout the Province. For grant purposes, it must approve sites and plans of school buildings.

Under the Minister, the administration of the Department's duties is carried out by a Chief Director of Education assisted by two Deputy Ministers who are jointly responsible for supervising the activities of some 12 divisional units or branches. One of the Deputies specializes in matters concerning elementary school administration, while the other deals with secondary school affairs. The *Elementary Education Branch* plans and supervises the functioning of the elementary school system, advises councils with respect to the formation of school sections and directs school boards in connection with such matters as courses of study, text-books, the provision of school buildings, as well as equipment and facilities for the transportation of pupils. This Branch also operates three railway school cars, in co-operation with the railways, in order to bring educational facilities to children in remote areas.

Similar functions related to secondary education are carried out by the *Secondary Education Branch*, including the maintenance of sound standards of instruction through inspection and supervision. At present, in co-operation with the Federal Government, the Branch is extending its plans for the training of pupils of average or below-average ability in order that they may be retained in school until they have sufficient training to ensure reasonable security in employment. It is responsible for operating five

Technical Institutes established by the Province. These consist of the Ryerson Institute of Technology, Toronto, the Provincial Institute of Mining, Haileybury, the Eastern Ontario Institute of Technology, Ottawa, the Western Ontario Institute of Technology, Windsor, and the Hamilton Institute of Technology. Apprenticeship training courses are also given at The Provincial Institute of Trades, Toronto, operated by the Ontario Department of Education and sponsored by the Ontario Department of Labour.

The *Special Educational Services Branch* directs the Department's program of providing education for handicapped and gifted children. For this purpose, the Department operates two residential schools for blind and deaf children. It employs special staff to assist local school boards in providing local programs for both physically and mentally handicapped children. Assistance is given to associations which provide instruction for persons in sanatoria, cerebral palsy centres and schools established by the Ontario Association for Retarded Children. A division of the Branch encourages the development of guidance services in local school systems. Assistance in this field is made available to inspectors, school boards and teachers. The Branch's statistical division compiles and analyses comprehensive records related to school operations throughout the Province. This Branch also ensures that the schools maintain adequate attendance records and supervises the enforcement of the school attendance section of The Schools Administration Act.

The *Teacher Education Branch* is responsible for operating the Provincial Teachers' Colleges at Hamilton, London, New Toronto, North Bay, Ottawa (2), Peterborough, Port Arthur, Stratford and Toronto. The College which opens at Port Arthur in September, 1961—the Lakehead Teachers' College—operated in temporary quarters at Fort William in 1960-61. The Branch administers these Colleges for the training of elementary school teachers, defines courses of study and teaching methods and selects the public and separate schools to be used for practice teaching.

The preparation of secondary school teachers takes place at the Ontario College of Education, which operates under the University of Toronto in co-operation with the Department of Education. The course consists of one academic year and provides certificates—Type A for graduates of university Honour courses and Type B for Pass course students. In addition, supplementary courses are offered and may be taken concurrently with the regular courses. Suitable courses are provided at the College of Education for the instruction and training of teachers for the Province's technical and vocational schools. Owing to the demand for teachers, summer courses are provided at Toronto, London and Kingston.

Programs to improve the abilities of teaching staffs of elementary schools are carried out by the *Professional*

Development Branch. In co-operation with other Branches of the Department, it plans and supervises summer course training programs and assists local groups or organizations of teachers in the development of in-service courses.

The *Curriculum and Text-Books Branch* co-ordinates the planning of curricula and the selection of text-books to be used in schools under the jurisdiction of the Department. This Branch works with other offices of the Department and with local school boards and officials in carrying out a continuing review of curricula and in making recommendations for changes in courses of study.

A wide range of general Departmental administrative functions is carried out by the *Registrar's Branch*. It arranges for all matters in connection with the preparation, supervision, marking and recording of Departmental examinations. This Branch also handles detailed work in connection with secondary school diplomas, and with the certification of teachers, issues interim and permanent teaching certificates, receives applications for admission to Teachers' Colleges and, in co-operation with the Teacher Education Branch, arranges for the admission of suitable applicants.

The general business administration of the Department, including the calculation of grants for school purposes, is the responsibility of the *Business Administration Branch*. It also reviews the accounting records of the Technical Institutes and Teachers' Colleges as well as those of the Ontario Schools for the Blind and Deaf.

Other special services are provided by divisions of the Department. The *Technical Advisor* supplies technical advice to school boards with respect to proposed building programs. Data are provided in connection with required size and number of classrooms and the estimated costs of construction. Building plans are reviewed and, if required, suggestions are made to increase the efficiency and suitability of the building. A central library service is provided by the Department through the Legislative Library. Although primarily for the use of the Legislature and the Civil Service, its facilities are available to the general public. Upon request, material from the Library is loaned to other libraries. Direction and assistance to public libraries in the Province are provided by the *Provincial Library Service*. The work of this Division is carried out under The Public Libraries Act, which is concerned with the establishment of public libraries, library co-operatives and library associations. The Library Service inspects libraries, reviews library reports and recommends the payment of grants to library boards. The *Community Programs Branch* supplies advisory services related to the establishment of organized community recreation programs and administers the payment of grants to municipalities in support of recreation programs as provided under The Department of Education Act. The Branch also aids in provid-

ing leadership courses related to the conduct of recreational and adult educational programs.

The maintenance of high Province-wide standards in a school system organized and administered at the local level has been a challenging objective. Many of the school boards in Ontario lack the financial ability to provide a satisfactory school program from their own resources. By the end of World War II, it was becoming impossible for local taxes to sustain all the costly demands placed upon them, including the demand for a wholesale expansion of school facilities arising from the spectacular growth in population and the pronounced trend toward a lengthening of time spent by each student in school. To promote the extension of equal educational opportunities, to raise standards and to give relief to the local taxpayer, the Province sharply increased its grants for the support of education. In the fiscal year 1961-62, the Province's financial aid to local school boards, including the Provincial contributions to the Teachers' Superannuation Fund, will total \$212 million. Included in this amount is \$7 million to provide for a special payment of residential and farm school-tax assistance grants to boards, based on \$5.00 per pupil of average daily attendance. This compares with an outlay of \$180 million in the preceding fiscal year and is over three times the amount provided for in 1954-55.

The basis upon which the funds are distributed has been revised from time to time in an attempt to assure equity in their apportionment. Grants are now based partly on a "growth-need" factor which takes into account the special circumstances of communities which are undergoing rapid expansion. The "growth-need" factor provides a higher percentage of assistance to any municipality that is obliged to incur heavy capital and pupil transportation costs. A series of tables is arranged according to population and type of municipality. Within each table, the rates, some of which were formerly computed on the basis of population only, are now determined with reference to "growth-need" and equalized assessment, either equalized assessment per classroom or per capita. Numerous other improvements, including the establishment of a system of equalized assessment, have been made in the grants formula in recent years. In 1959, the approved cost of school sites, industrial arts shops, home economics classrooms, school cafeterias and gymnasiums, along with regular classrooms, were included in the grant formula. Moreover, the approved cost for each classroom and science laboratory in secondary schools upon which grants are calculated, was raised from \$20,000 to \$25,000.

As part of the general legislative grants, the Government of Ontario reimburses school boards up to \$3 per pupil in Grades I to X with respect to outlays on approved text-books, and up to \$1 per pupil in certain communities for library books. Assistance is also given to boards providing milk without charge to school children.

Other special programs have been adopted for the training of socially, physically, or educationally handicapped children. In 1953, for example, the Department began to assist in the education of trainable mentally retarded children. Grants were established for this purpose, at a rate of \$250 per annum for every child attending on a half-day basis and \$500 per annum for every child attending on a full-day basis. The Department also pays 30 per cent of the approved capital expenditure by local Associations for Retarded Children.

The Province's grants to our growing family of universities have been enormously increased. During the ten years 1952-53 to 1961-62, these institutions will have received grants for capital and operating purposes aggregating over \$187 million, including over \$82 million for the construction of new buildings and the acquisition of new equipment.

Since 1943, Provincial and Dominion-Provincial Bursaries have been available to help proficient students finance their higher education at Universities, Colleges, Teachers' Colleges, and Technical Institutes. In recent years, funds have been made available also for scholarships and loans. In 1960-61, approximately 8,800 students benefited from these forms of aid. In 1961-62, the Ontario Department of Education will distribute \$1,450,000 in scholarships and bursaries (\$100,000 of this sum is contributed by the Federal Government). Loans will probably be granted to the extent of \$1,500,000. Thus, financial assistance will be made available to some 10,000 Ontario students in the fiscal year 1961-62. In 1959, the Government established the Queen Elizabeth II Ontario Scholarship Fund for the benefit of graduate students. The interest on \$500,000 is disbursed annually by a Committee of University Presidents with the objective of providing scholars and teachers for the universities.

ENERGY RESOURCES

Power, the mainspring of economic and social progress in an industrial community, has been a key factor in the development and growth of our Province. Ontario has always had a plentiful supply of reasonably priced power, but, the time is fast approaching when the accessible hydraulic sites within the Province will have been fully exploited. Thus, if the economy is to be adequately supplied with power in the future, increasing reliance must be placed upon other sources of energy, and concrete steps must be taken to ensure the safe, effective development of our energy resources and supplies. As this could only be achieved through careful planning and efficient co-ordination, the Department of Energy Resources was established in 1959 to implement the Government's aims and objectives in the field of energy resources. The Department, which is responsible for all resources in the Province which are capable of being transformed into power, acts as a research and advisory body and provides liaison between

the Government and the basic producers and suppliers of oil and its derivatives, natural gas and fuel supplies.

The Department is comprised of four Branches—Energy Studies, Drilling and Production, Transmission and Distribution, and Utilization. Each Branch except that of Energy Studies, is headed by a Chief Inspector who is assisted by a number of field inspectors.

The *Energy Studies Branch* investigates and examines current or long-term energy problems as well as others which might be referred to it by the Minister. These problems include the future energy needs of the Province, the cost of such energy and the advisability of the export of energy. The production of oil and natural gas in the Province is supervised and inspected by the *Drilling and Production Branch*. It enforces all the provisions of the Act and Regulations which have been designed to ensure safety in all phases of drilling, well-completions and in the production of wells.

Inspection to maintain safe, adequate standards of construction, design and maintenance and the operation of pipelines are important functions of the *Transmission and Distribution Branch*. It also co-operates with and assists municipal and Provincial Government departments in the interpretation and enforcement of the installation codes which have been formulated to ensure maximum public safety. The *Utilization Branch* is engaged in supervising and checking all gas and oil installations (including piping and venting) in homes and buildings to ensure that standards set out under the Act and Regulations are maintained.

As a result of recommendations in the Report of the Committee on the Organization of Government in Ontario, the statutes governing the Ontario Fuel Board were repealed and the *Ontario Energy Board* was established. This Board, which is responsible to the Minister, is composed of a Chairman, four members, an Energy Returns Officer and a Secretary. Its primary function is the setting and approving of rates at which natural gas will be sold in the Province. These rates are to be set after public hearings have been conducted. The Board also has control over the designation of gas storage areas, the leave to construct pipelines, administration of the abandoned work fund, hearings in connection with licence suspensions, and other public questions concerning energy.

HEALTH

Through the Department of Health the Ontario Government makes an increasingly important contribution toward safeguarding and improving the health of the Province's people. The Department is required to adopt all feasible measures for the prevention and control of disease in the Province, to provide advisory and diagnostic services to local health authorities and other medical personnel on public health matters, to operate mental hospitals, and to provide a variety of special services in the interest of the public's good health.

The major function of the *Environmental Sanitation Branch* is to develop, expand and generally direct the adoption of procedures designed to reduce the incidence of diseases carried by milk, water, food and sewage. In carrying out its work, the Branch co-operates with local Medical Officers of Health to ensure that statutory regulations are complied with. The Branch also administers The Cemeteries Act which provides for the establishment and operation of cemeteries in Ontario. In addition, it operates an Environmental Sanitation Training Centre where sanitation inspectors are trained for the Department of Health and municipal organizations.

A major service to the industrial sector of the population is provided by the *Industrial Hygiene Branch* which seeks to identify and control specific occupational hazards and encourage the adoption of satisfactory health services in industrial plants.

The *Epidemiology Branch* also works closely with the local Medical Officers in administering those regulations of The Public Health Act bearing on the control of communicable diseases and the determination of periods of quarantine. The Branch provides a consultative service as well as free biological items to local health authorities and physicians to assist in the prevention and treatment of communicable diseases.

Ways and means of controlling the spread of infectious venereal diseases are studied by the *Venereal Disease Control Section*. The Section ensures that proper treatment is given to existing cases and provides consultative clinical and laboratory services to physicians in the Province. In addition, an educational program which includes the distribution of films, literature and other material on venereal diseases to interested groups, is carried on by the Section.

The Province's anti-tuberculosis program is headed by the *Tuberculosis Prevention Branch* of the Department. It is charged with the task of developing and promoting measures designed to detect and cure the disease in its early stages. Some 280 free diagnostic chest clinics are operated throughout the Province by both the Branch and other agencies. Extension services are provided by the Province in the north-eastern and eastern parts of the Province through seven district clinic centres. The mass X-ray survey program, conducted by the Branch on a continuing basis, covers 250,000 to 350,000 persons annually. In 1958, tuberculin testing was introduced in connection with this program. In discharging its duties pertaining to the treatment of T.B. patients the Branch administers The Sanatoria for Consumptives Act which provides for the establishment and operation of sanatoria. Although the Province does not operate these institutions, it makes very substantial financial contributions toward operating costs and the purchase of new facilities. At present, Provincial assistance is provided to 12 sanatoria as well as the T.B. section of the Ontario Hospital at

Woodstock. In the fiscal year 1947-48, Provincial grants to sanatoria totalled \$4 million. They are now stabilized at around \$6 million annually, this levelling out being a result of the decline in demand for hospital accommodation—clear evidence of the success of the prevention program. Ontario's death rate from tuberculosis in 1960 of 2.5 per 100,000 population compares most favourably with the rate of 28.1 deaths per 100,000 population in the early 1940's.

Public health administration receives an ever-increasing amount of attention from the Provincial Department of Health. In 1940, the first Public Health Unit was formed for the counties of Stormont, Dundas and Glengarry; there are now 34 covering a population of more than 2,000,000. These units are groupings of urban and rural municipalities, founded on the theory that a broader public health organization can operate a much more diversified program and administer it more effectively and economically. They function under the local authority of a Board of Health which appoints personnel—doctors, nurses, sanitary inspectors and clerical staff. Larger units employ veterinarians, dentists and other public health specialists.

A wide range of services is provided by these organizations, including communicable disease control, tuberculosis and venereal disease prevention, maternal and infant hygiene, milk and water sanitation, preventive dentistry and special assistance in such matters as poliomyelitis vaccination. These units receive substantial aid from both the Province and the Federal Government in recognition of their contribution toward a higher uniform standard of public health facilities and services in all areas, whether rural or urban.

Responsibility for establishing and operating facilities for the treatment of the mentally ill, mentally defective and the epileptic rests with the *Mental Health Branch*—the Department's largest organizational unit. The development of Ontario's mental hospital system has been carried out on a regional basis, making it possible for patients to attend institutions in their own areas where they can be more easily visited by friends and relatives. Twenty-one institutions provide the best and most modern forms of therapy. The mental health program's influence is reflected in the rising annual discharge of patients.

In addition to the diagnostic and treatment services provided to patients admitted to Ontario Hospitals, the Branch supervises the more than 950 patients being cared for in private boarding homes and carries out periodic inspections of private institutions providing treatment services. Furthermore, the Province operates twenty-eight Community Mental Health Services, including twenty Mental Health Clinics, five Day-Care Centres, two Child Guidance Clinics and one forensic clinic. The Province has assisted in the building and operation of ten psychiatric units in general hospitals. In the period from 1947-48 to 1960-61 inclusive, the Government's expenditures for the

treatment and prevention of mental illness exceeded \$315 million for current operation, while an additional \$127 million (including Federal Grants) was spent for capital purposes.

A number of branches and sections of the Department of Health provide various specialized services both to the public and the medical profession. The *Nursing Branch* guides and regulates the training of registered nurses, and certified nursing assistants. Under The Nursing Act, the Branch regulates and inspects schools of nursing for registered nurses, and training centres for certified nursing assistants.

The *Dental Branch* supervises and aids in carrying out dental inspection programs in schools and administers grants to local Boards of Health for the establishment of these services. The Branch provides dental services in all Ontario Hospitals as well as in remote areas of the Province.

The *Maternal and Child Health Branch* concerns itself with matters related to the health of expectant mothers, infants, pre-school and school-age children. The ultimate objective of the program administered by this Branch is the reduction of maternal and infant morbidity and mortality and the improvement and conservation of maternal and child health.

The *Laboratories Branch*, through the Central Laboratory, thirteen regional laboratories and five associated laboratories, provides facilities for the examination of all clinical specimens forwarded by Medical Officers of Health, hospitals and by private medical practitioners. Examination facilities are offered in bacteriology, virology, serology, biochemistry, pathology and many fields of a more specialized nature. In addition to the in-service training of its technical staff, the laboratories conduct a basic course for laboratory technicians, qualifying them to serve in public health and hospital laboratories throughout the Province. The vast bulk of the services provided by the Provincial Laboratories is free to the public and the medical profession.

The collection, tabulation and analysis of medical statistics is undertaken by the *Medical Statistics Branch*. It also advises other sections of the Department, other Provincial Government departments and local health organizations with respect to the analysis and interpretation of medical tabular data.

A number of boards and commissions report to the Minister of Health. The *Ontario Hospital Services Commission*—one of the Department's most important commissions—is responsible for operating the Province's program of prepaid hospital care and for administering the payment of the Government's capital and maintenance grants to public hospitals as well as other grants previously paid through the Public and Private Hospitals Branch of the Department of Health. After extended study and discussion with Federal officials the Ontario Hospital Care

Insurance Plan came into effect on January 1, 1959. The purpose of this plan is to remove from the individual the financial hazard of hospitalization. Insurance protection is available to all subscribers, regardless of age, condition of health, disability or occupation. The plan has no cancellable features and no limitation on time of stay in hospital. Benefits are provided in all approved public general, chronic and convalescent hospitals and in mental institutions and tuberculosis sanatoria.

Until 1945, Provincial assistance to public hospitals was confined almost entirely to the payment of a portion of the costs incurred in treating indigent patients. Later, in the case of newly established hospitals, statutory grants were paid for all patients during the first 10 years of the hospital's operation. Aid was expanded in 1946 to cover public ward beds in teaching hospitals and, in the following year, grants became payable on all public ward beds, regardless of whether the occupants were self-paying or indigent patients.

The depression and war years forced a curtailment of hospital construction. At the end of the war, with population soaring, Ontario faced a serious shortage of hospital beds. In response, the Government introduced in 1947 a new policy of paying grants to hospitals for construction purposes. These were augmented by special grants for maintenance and rehabilitation and, in 1958, the basic construction grants were also doubled. Provincial assistance to all groups of hospitals in Ontario—public, mental and T.B.—during the period 1947-48 to 1960-61, amounted to almost \$800 million. The distribution was as follows:

Type of Hospital	Operation and Maintenance	Construction and Repair*	Total
	(Millions of dollars)		
Public.....	151.6	116.6	268.2
Mental.....	315.6	126.9	442.5
T.B.....	78.8	1.9	80.7
Total.....	546.0	245.4	791.4

*Includes special grants.

As a result of these increases in Provincial assistance, public hospital beds increased from 16,378 or 3.95 beds per thousand in 1947 to 31,453 or 5.12 per thousand in 1959. Beds in public, mental and T.B. hospitals in 1959 totalled 57,499 representing an increase of 62 per cent since 1947.

The *Ontario Cancer Institute*, established under The Cancer Act, 1957, directs the operations of the Princess Margaret Hospital, Toronto, in cancer research, diagnosis and treatment. The Act also provided for the creation of the *Ontario Cancer Treatment and Research Foundation* which works closely with the Institute in ensuring that adequate diagnostic and treatment services are available to the public. In addition, regional clinics providing radiotherapy are located throughout the Province.

The *Alcoholism Research Foundation*, formerly under the office of the Provincial Secretary now reports through the Department of Health. The establishment of the Foundation under The Alcoholism Research Foundation

Act of 1949 made Ontario the first province to initiate a systematic program of alcoholism treatment and prevention. The work of this organization has been developed along the lines of research, training, education and treatment.

HIGHWAYS

To meet the need for more and better traffic facilities, the Province has devoted an increasing share of its financial resources to the highway program. In the fiscal year 1961-62, the Department of Highways' expenditure is estimated at \$267.9 million compared with \$103.0 million in 1951-52 and \$22.9 million in 1945-46.

The Department of Highways—originally established as the Department of Public Highways after a study of road problems by the Public Roads and Highways Commission in 1914—is responsible for the planning, construction and maintenance of all King's Highways and Secondary Highways throughout the Province and for approving all municipal road projects to which it contributes. Its work is conducted by several branches: Administration; Legal; the Office of the Chief Engineer, which includes Planning and Design, and Operations; Services; the Office of the Financial Comptroller; Municipal Roads; and Personnel. For administrative purposes the Province is divided into five regions and 18 Departmental districts.

The operation of the Department is governed principally by The Highway Improvement Act and its amendments. More than 12,000 persons are employed in carrying out the work authorized to improve, extend and maintain facilities for vehicular traffic. The duties of the Department have grown from limited supervision and assistance on 1,600 miles of roads in 1920 to its current direct responsibility for 11,864 miles of King's Highways and Secondary Highways and the administration of \$75 million in municipal road subsidies.

Early in 1959, the Government announced a special \$100 million program to expedite a series of major projects to be carried out over several years under normal financing. Funds are being made available to advance the construction or completion of such undertakings as the Homer Skyway over the Welland Canal and other high level bridges; a Hamilton by-pass—designed to provide services similar to that of Highway 401 at Toronto; and the Rainy Lake Causeway east of Fort Frances. The Province is co-operating in the construction of several border bridges; one at Queenston (to connect with the New York Thruway) and one at Sault Ste. Marie (to connect with the Michigan State highway system and the Mackinac bridge on the one side, and the Trans-Canada Highway system on the other).

In 1950, the Province signed the Trans-Canada Highway agreement with the Federal Government. Accordingly, Ontario undertook to construct or up-grade

some 1,453 miles of highway, dividing the cost on a 50-50 basis with the Federal Government. In 1956, the financial terms of this arrangement were revised and the Federal Government agreed to contribute an additional 40 per cent to the construction of sections where no highway existed prior to July of that year.

One of these, completed in June, 1959, was between Port Severn and Foote's Bay; another was between Agawa and Marathon. With the opening of this latter stretch of road in September, 1960, the entire Ontario portion of the Trans-Canada Highway was open to traffic. Expenditures of the Department under these agreements up to March 31, 1961, amounted to \$170 million. Although now in use throughout the Province, it is expected that all sections of the road will be surfaced to highway standards by March 31, 1963.

Ontario's road network at the end of 1959 was over 85,000 miles in length. The King's Highway system—currently close to 9,000—has been expanded by about 1,300 miles since 1946. During the fiscal year 1961-62, it is expected that more than 532 miles of grading and paving and 111 steel and concrete structures will have been started. A major feature of the Government's road program is improved highway design as evidenced by "controlled access" arterial expressways, traffic interchanges and "skyways". Ontario motor vehicle registrations climbed to more than two million in 1960—double the number registered ten years earlier.

The *Administration Branch* is headed by the Chief of Administration, who is also Executive Assistant to the Deputy Minister. The Chief of Administration, besides his Executive and Administrative duties, is responsible for an Accounts Section, the Engineering Audit Section, the Information Section, the Electronic Computing Section and the Art Design Section.

The *Legal Branch* has three solicitors located in the Main Office in Toronto, to provide legal advice to the various branches of the Department and also to provide assistance and advice to the regional solicitors where necessary. The latter are located in the Department's regional offices at Kingston, London, North Bay and Toronto. The Legal Branch also administers the policy and regulations regarding the erection of buildings, gasoline pumps, signs and other structures along the Provincial highways and also with respect to entrances to controlled-access highways. The Insurance and Claims Section is responsible for the insurance policies carried by the Department, for some motor vehicle liability policies carried by other departments, and investigates and supervises the settlement of claims made against the Department under The Highway Improvement Act and claims made by the Department under The Workmen's Compensation Act.

The *Chief Engineer* is the final professional authority in all matters of engineering in connection with the planning, construction and maintenance of highways. The

Planning and Design Branch, responsible for long-term planning and design, and the *Operations Branch*, which provides construction and maintenance supervision, guidance and technical advice to District Engineers, are both under his supervision.

The *Services Branch* administers purchase, sale and rental of all Department properties; performs land surveys and prepares necessary plans for the acquisition or disposal of land, assumption, reversion, designation and closing of highways; administers the purchase of all Department materials and overall control of District stores of maintenance and construction materials; establishes practices in respect of purchase and maintenance of all Department vehicles and equipment; establishes practices for filing and mailing service in the Department; procures and distributes all office furniture, equipment and supplies; supervises the allocation of office space and building requirements of the Department; administers all tendering procedures within the Department.

The *Financial Comptroller's Branch* assesses the qualifications of contractors who bid on Departmental jobs so as to determine whether they can fulfil the contracts. It processes payments in respect of work completed. Other duties of the Branch include the auditing of financial and non-engineering accounts and the preparation and overall administration of the Department budget.

In addition to having direct responsibility for all King's Highways and Secondary Highways, the Province also contributes substantially to the construction and maintenance of municipal roads throughout Ontario. The *Municipal Roads Branch* administers The Highway Improvement Act with respect to county, township, and urban municipal roads. At the end of 1959, some 74,000 miles of roads and streets were under the jurisdiction of local governing bodies. More than 1,450 municipal units will receive \$75 million in Provincial road subsidies in the 1961-62 fiscal year. Since 1949-50, Provincial road subsidies have been provided as follows: for counties, 50 per cent of expenditure on road construction and maintenance and 80 per cent on bridges; for townships, up to 80 per cent on roads and 80 per cent on bridges; for cities and separated towns (except for certain designated Metropolitan Toronto roads where the subsidy is 50 per cent), 33½ per cent on roads and bridges; and for other towns and villages, 50 per cent on roads and up to 80 per cent on bridges.

In an effort to promote development of sparsely settled areas, the Ontario Department of Highways supervises and assumes the cost of constructing and maintaining development roads in the Province. In 1961-62, the Department will expend \$8.5 million on such roads. In respect to roads in unincorporated townships of Northern Ontario, the Department shares the cost of work under The Statute Labour Act. The Department contributes

roughly 65 per cent of the overall cost of roads and structures under such arrangements. In 1961-62, some \$1.8 million has been appropriated for roads of this type.

INSURANCE

The Department of Insurance is the guardian of the people in their dealings with the insurance, loan and trust, and real estate businesses, credit unions, collection agencies, prepaid hospital and medical associations and companies selling investment contracts. Under the Superintendent of Insurance, the Department is responsible to the Attorney-General.

Under The Insurance Act, an insurance company, agent, broker or adjuster may carry on business in this Province only after being licensed by the Department. Licences are granted when the Department is satisfied as to the applicant's honesty, integrity and suitability and then only after a written examination has been passed (qualification by examination is dispensed with in the case of life insurance applicants). By scrutinizing annual returns from all insurance companies, the Department satisfies itself as to the solvency of each company and its ability to meet legitimate claims.

Questions of granting or refusing an application for licence, or renewal of licence, can be referred either by the Superintendent or the applicant to an advisory board composed of one representative each of the insurers, the agents and the Superintendent. The board hears and reports the case to the Superintendent for decision. Provision is made for appeal to the courts against any decision of the Superintendent.

The Department frequently intervenes on behalf of an insured person with respect to a policy claim against an insurer. In purely legal cases, however, the matter can be heard only by the courts. In other cases, the Superintendent can require that further consideration be given to the claim and in many instances a satisfactory settlement has been reached.

Approximately 17,400 agents are registered with the Department, divided almost equally between life insurance agents and others. Over 640 insurers are licensed under the Act, of which about 220 are Ontario companies.

Loan and trust companies come under the surveillance of the Department through The Loan and Trust Corporations Act. Annual financial statements from some 27 trust and seven loan companies are analyzed, while an annual examination is made of the books and records of those companies not registered under the Loan Companies Act and the Trust Companies Act of Canada. These examinations provide an independent survey of the companies' financial position and general business and financial practices, as well as ensuring compliance with the regulatory provisions of the Act. On the basis of these examinations and financial statements, a company's suitability for registration is determined.

The public is kept informed of the financial position of insurance and trust and loan companies through the publication, by the Department, of annual reports. One of these shows the financial statements of all insurance companies; another shows those for loan and trust companies.

The Real Estate and Business Brokers Act requires the licensing of all real estate brokers and salesmen. Broker applicants must pass a written examination and the Department must be satisfied as to their general business suitability. Provision is made for an advisory board similar in function and composition to that under The Insurance Act. Approximately 2,720 brokers and 7,600 salesmen are registered with the Department. There have been various investigations of brokers and salesmen in respect of their dealings with the public. When these investigations have revealed a violation of the Act or of the Criminal Code, proceedings have been initiated in the courts.

A total of 1,400 credit unions incorporated in the Province are subject to the supervision of the Department. Under the provisions of The Credit Unions Act, these organizations must file annual financial statements and must maintain adequate records and sound financial policies. The assets of these credit unions currently amount to some \$107 million.

Companies operating non-profit repayment hospital and medical plans also come under the supervision of the Department through The Prepaid Hospital and Medical Services Act. At present, 39 plans with assets of \$25 million are registered. In addition, an amendment to The Labour Relations Act passed in 1960 requires audited financial statements of the affairs of pension or welfare funds operated by companies for the benefit of employees to be filed with the Department of Insurance.

Collection agencies and companies which sell investment contracts are also supervised by the Department under the relevant acts. Periodic inspection and annual returns from collection agencies must satisfy the Department that proper and prompt remittances are made to clients. There are 140 collection agencies registered in the Province at present. The Superintendent is required to approve the financial provisions in investment contracts and the fitness of salesmen to be registered. Adequate reserves for the eventual payment of outstanding contracts must be maintained. Three companies, with total assets of \$119 million and employing 226 salesmen, are registered under The Investment Contracts Act.

LABOUR

With the development of labour organization and the impressive growth of Ontario's industrial community, the Province's Department of Labour has assumed an increasingly important role. The Department's primary concern is the safety and economic protection of the Provincial

labour force. It provides facilities for examining into and certifying as to the qualifications of workers in certain designated trades or occupations as well as efficient mechanism for conciliating and settling disputes.

The procedure for developing good labour relations has been refined over the years. Mediation services have been provided under various statutes since the turn of the century. A major development occurred in 1943 when The Collective Bargaining Act was passed and The Labour Court of Ontario was established. In 1944, The Labour Court of Ontario was replaced by a Labour Relations Board which administered within Ontario the wartime labour relations legislation passed by the Federal Government. This scheme of industrial legislation was replaced by The Labour Relations Act, 1948, and ultimately by the present Labour Relations Act, first enacted in 1950 and amended in various respects in subsequent years.

The current Labour Relations Act is operated in part by a *Labour Relations Board*, with equal representation of labour and management, and an impartial chairman, vice-chairman and three deputy vice-chairmen. Other aspects of the Act are administered by the Minister of Labour and the conciliation service of the Department. The Board, which may sit in two or more divisions, administers those portions of the Act which deal with the certification of bargaining agents, the termination of bargaining rights of bargaining agents, the granting of requests for conciliation services, the giving of consent to institute prosecutions against persons alleged to have violated the Act, and the making of declarations that strikes or lock-outs are unlawful. Recently, authority has been conferred upon the Board to provide a remedy for persons discharged or discriminated against for union activity. The Board was also given certain authority with respect to trusteeships and financial statements of unions. In short, the chief duty of the Board is to adjudicate on matters which, in the past, have frequently degenerated into work stoppages.

In 1960, provision was made for the establishment of a jurisdictional disputes commission to deal with jurisdictional disputes which have in the past been a cause of work stoppages.

The conciliation service maintained by the Department is comprised of men of experience and understanding who endeavour to bring disputing parties into a position of agreement.

The safeguarding of the worker against various hazards of life and health is also a major responsibility of the Department of Labour. This is accomplished through a wide body of legislation providing for the inspection of factory, commercial and other establishments. Through the *Boiler, Elevator and Factory Inspection Branches* of the Department, a constant check is maintained upon safety standards and working conditions. In addition,

new industrial and commercial buildings must meet certain requirements before their use is approved.

The *Factory Inspection Branch* inspects industrial and commercial establishments and enforces regulations respecting protection of persons working in compressed air, tunnels, open caissons, coffer dams and crib work.

To ensure that industry is staffed with competent operating engineers, the *Board of Examiners* of operating engineers determines the qualifications of all applicants and reports its recommendations to the Minister. In general, the Board administers and enforces the regulatory provisions under The Operating Engineers Act.

Another branch of the Department has responsibility for ensuring good labour standards. In this connection the *Industry and Labour Board*, created under The Department of Labour Act, consisting of three members who are officers of the Department, administers legislation designed to promote better working conditions and stability for both employees and employers. The Acts at present under the Board are The Apprenticeship Act, administered through the Apprenticeship Branch, The Hours of Work and Vacations with Pay Act, The Industrial Standards Act, and The Minimum Wage Act which is administered through the Minimum Wage Branch.

The Industrial Standards Act provides machinery to arrange for schedules of wages and hours and days of labour for different industries in designated zones. Industrial Standards Officers convene conferences of employers and employees in given industries within designated zones to investigate and consider the conditions of labour and the practices prevailing within the industry.

In administering The Minimum Wage Act, the Board sets minimum wages by orders and investigates complaints and violations of these orders. Currently, operations in this field are concerned with the establishment of minimum wages for women and the rates have been amended from time to time to keep pace with standards of living.

Vacations with pay became a guaranteed right of the Province's working force with the passage, in 1944, of The Hours of Work and Vacations with Pay Act. This legislation provides for a ceiling on the number of hours worked per week and stipulates a minimum paid vacation period. A notable feature of the Act is the stamp credit system which allows the worker, even though he may transfer from job to job, to enjoy the benefits of an annual vacation without loss of pay.

An extensive apprenticeship training program is conducted to meet the growing demands for skilled artisans in the Province. Certificates of qualification are issued by the Board in designated trades, and trade schools are licensed to carry on technical training.

Ontario's program to eliminate discriminatory practices in respect of employment, accommodation and female remuneration has been considered as the best in the Commonwealth. The responsibility for administering the

Province's Human Rights Code rests with the Department of Labour.

The Fair Employment Practices Act, passed in 1951, outlaws discrimination in employment on the basis of race, creed, colour, nationality, ancestry or place of origin and seeks to ensure equal job opportunities for all. In the same year, the Legislature enacted The Female Employees Fair Remuneration Act. This law prohibits wage discrimination between male and female employees doing the same work in the same establishment. In order to ensure equality of access to public accommodation and services, the Legislature in 1954 passed The Fair Accommodation Practices Act. These provisions of the legislation have been extended to prohibit discrimination in the occupancy of apartment houses containing more than six self-contained dwelling units.

In January, 1959, The Ontario Anti-Discrimination Commission was set up to advise the Minister of Labour in the administration of the Human Rights Code and to set up machinery to acquaint the public with the Code. The Commission launched a program designed to educate the public about the rights and duties under the Code. The necessary arrangements also have been made to change the name of the Commission to The Ontario Human Rights Commission.

The Employment Agencies Act, effective June 11, 1960, is designed to enable the Department of Labour to license and regulate employment agencies. The Department is empowered to impose fines for infringements of the Act.

The Workmen's Compensation Act, originally passed in 1914, and administered by the *Workmen's Compensation Board* composed of a chairman, vice-chairman and one commissioner, has contributed much to the security of the worker and his dependents. The basic premise set forth in this legislation is that industry as a whole shall be liable to compensate workmen disabled as a result of accidents arising out of and in the course of employment. The accident fund from which such payments are made is sustained by a levy on employers based on a set percentage rate for each \$100 of payroll in accordance with the nature of the industry. Although certain employers, as specified under the Act, are not required to contribute to the collective liability system, they must underwrite individually any amounts required by the Board for claims involving their workmen.

In recent years the Act has been revised to keep pace with the changing economy. Benefits have been increased, so that, at the present time, the maximum salary upon which compensation is based is \$5,000 per year. Coverage by the Act has also been considerably broadened to include many industries not previously protected. Recently, the Board opened a new hospital and rehabilitation centre in Toronto's northern suburbs which is considered to be a model of its kind.

LANDS AND FORESTS

The Department of Lands and Forests has the broad responsibility of protecting and developing the Province's great forest resources. In supervising our forests, the Department ensures that they are widely used, that losses are replaced through regeneration and regrowth and that the forests are improved through research and sound management. Instrumental in carrying out this policy are ten Branches of the Department, the more directly concerned being the Timber Branch, the Forest Protection Branch and the Research Branch.

The *Timber Branch* has three Sections, the Timber Management Section, the Reforestation Section and the Silviculture Section.

The *Timber Management Section* oversees the granting of timber cutting rights. Over \$12.5 million in dues was collected in the fiscal year 1960-61.

In 1946, a Royal Commission (the Kennedy Commission) was appointed by the Ontario Government to investigate the effectiveness and soundness of Ontario's forest policies. Its main recommendations have been implemented. A new Crown Timber Act was passed in 1952 and embodies many of these reforms. The Act is a consolidation of eight former acts dealing with the administration of timber in Crown lands. Under the Act, licensees are required to submit annually for approval to the Minister a plan for proposed cutting operations. In addition, the Act contains a number of clauses designed to eliminate wasteful practices and to foster a sound development and utilization of our forest resources.

Reforestation is an integral part of the Department's conservation and development efforts. The *Reforestation Section* is responsible for tree seed collection, growing seedlings, experimental planting and seedling distribution, reforestation and management of county, municipal and other forests under agreement and generally promoting reforestation and good management of farm woodlots, school forest plots and roadside planting. The Branch contributes substantially to the implementation of the sustained-yield policy adopted by the Government for Crown lands to assure a maximum yield of the valuable timber species in perpetuity. This policy was stepped up in 1956, when additional funds in the amount of \$550,000 were made available for regeneration. This sum was increased to \$1.1 million in 1957-58.

The rising demand for tree seedlings has forced a huge expansion of nursery capacity over the past 10 years. In the fiscal year 1956-57, five existing tree nurseries supplied 31.1 million trees. Four new nurseries were established in 1957, and two more with a possible ultimate capacity of 10 million trees each per annum were added in 1958. Shipments of approximately 50 million trees were made in 1960.

The Forest Resources Inventory, completed in 1957, has been an invaluable aid in supplying the basic informa-

tion for the forest development plans of the Timber Division. Since the inventory's inception in 1947, 285,000 square miles of forest lands have been photographed from the air. Maps and timber estimates have been prepared from the photographic material obtained. In 1958, a start was made to re-photograph the accessible forests, in order to bring the inventory up-to-date. It will henceforth be on a perpetual basis.

The Forest Resources Inventory gives, for the first time, a clear view of the extent of our forest resources. From this information, forest management plans have been prepared to provide for the orderly supply of raw materials from our forests in established industry and for the creation of new industries where possible. There are in effect at present 125 forest management plans and in the near future all forest lands administered by the Crown will be covered by these long-term plans. In order to give full effect to the sustained-yield forest program, the *Silviculture Section* was set up in 1958. In close co-operation with the other two sections of the Branch, the Silviculture Section is investigating the problem of assuring adequate future supplies of timber. This involves a continuing study of growth and regeneration on cut-over lands, burned lands and other areas denuded of forest cover.

The *Forest Protection Branch* consists of two sections through which the control of fire, insects and disease and the Department's Air Service are administered. The *Protection Section* maintains a fire detection and suppression service, a 1,600 unit Province-wide radio communication system, and more than 300 towers overlooking the wooded areas of the Province. The staff is constantly on the alert for forest insect infestations and disease outbreaks and instigates control measures where practicable. The expansion in the Branch's operations is demonstrated by the fact that the expenditures for forest protection have almost doubled in the past decade.

The *Air Service Section* works with the Protection Section in the vital service of forest fire detection and suppression. The aerial protection service is the largest of its kind in the world. All but one of the fleet of forty-four aircraft are Canadian-built deHavilland Beavers and Otters. They are equipped with floats, skis and a combination wheel-ski assembly for landing and taking off in limited space. An average of 12,000 miles is flown per year, while cargo aggregates almost ten million pounds annually.

The *Research Branch* is undertaking an integrated program of research aimed at solving certain of the many problems affecting the proper management of the renewable natural resources of the Province. Work continues in forestry, fisheries, wildlife and physics research and in the associated service fields of mechanics and mathematical statistics. In forestry, intensive soil and site studies are being made as well as efforts to improve methods of tree

breeding and reforestation. Research work is progressing in inland fisheries and in Great Lakes fisheries. In both instances, the emphasis is on population studies of the most important species. In wildlife, game management, habitat and laboratory studies are under way.

The *Fish and Wildlife Branch* administers the fish and game resources, abundantly available in the Province's 250,000 lakes and on its 140 million acres of forest land. The Branch is responsible for fish and wildlife management and propagation, trapline management, supervision of fish hatcheries and bird farms, and for the administration of fish and game laws and regulations. Some of the finest fishing and hunting areas on the North American continent can be found in Ontario and in these the Province holds a great attraction to residents and tourists alike.

Of further appeal to the tourist and outdoor enthusiast are the Provincial Parks which are administered by the *Parks Branch*. Recreational facilities offered to the public in Ontario's 79 parks are becoming increasingly popular, as is demonstrated by the fact that the number of camping permits issued increased from 75,000 in 1958-59 to 125,000 in 1959-60. Plans are afoot to develop another 11 parks. Vehicle admission permits first issued in 1957-58 numbered 145,000 and this increased to 208,000 in 1958-59 and to 293,000 in 1959-60. Revenue from park permits was \$354,000 in 1958-59 and \$525,000 in 1959-60. The expenditure by this Department on new construction for park facilities in 1960-61 is estimated at \$1.5 million.

The *Surveys Branch* has two sections, the Lands Section and the Surveys Section. The *Lands Section* administers Ontario's Crown lands, including the selling, leasing and licensing of part of these lands for farming, recreation, resorts and many other purposes.

The *Surveys Section* carries out all ground surveys and prepares plans for projects such as access roads and stream control dams. This Section also administers the leasing and licensing of Crown lands for the development of water power.

A new Surveys Act was passed in 1958. The new Act provides for the modernization of survey procedures. The Government had worked for several years, in co-operation with the Association of Ontario Land Surveyors, to produce the best possible legislation. Uniform and orderly appraisal of our ever more valuable lands is essential in this constantly growing Provincial community.

The Department of Lands and Forests—in addition to its head office personnel—maintains a large field staff, distributed over 22 districts. Responsible for its office management is the *Operations Branch*. Another important function of this Branch is the education of the public with respect to the conservation of natural resources and the dissemination of general information about Ontario's lands and forests.

In addition to the Head Office Branches already mentioned, there is an *Accounts Branch*, a *Law Branch* and a *Personnel Branch*.

MINES

Under authority of The Mining Act, the Ontario Department of Mines provides a wide range of technical and administrative services. Included in the former category are geological surveys, mines inspection, operation of laboratories, and the preparation of technical information. Important areas of administration concern the recording of claims, granting of mining rights, assessment of mines, collection of revenues from mining operations, collection of statistics, accounting, and public relations and publicity.

Of the technical services, the geological and geophysical surveys conducted by the *Geological Branch* of the Department provide fundamental information on which mining prospectors and interests base their efforts to tap our mineral resources. The Department has assisted the pioneering of various aerial surveying methods. The airborne magnetometer survey of 1948, carried out under the Department's auspices, with the co-operation of the Canadian Department of Mines and Technical Surveys, led to the discovery, and the later development, of the open-pit iron mining operation at Marmora in Eastern Ontario. This mine is currently in production and has proven ore reserves of some 20 million tons. Furthermore, an airborne magnetometer survey has been carried out—in co-operation with the Federal Government—covering an area of 60,000 square miles in Northwestern Ontario.

In addition to the surveys, the Branch examines and maps mineral deposits, makes reports on field work, prepares geological maps, and identifies rock and mineral specimens. For many years the Branch has conducted winter courses of instruction for prospectors in various centres across the Province. The importance of this work lies in the fact that the prospector performs an initial and essential function in the opening of any mining area.

The general administration of mining lands and of laws governing prospecting and the staking of claims under The Mining Act is dealt with by the *Mining Lands Branch*. The recording of mining claims, the issuance of miners' licences—5,755 were granted or renewed in 1960—and of patents and other instruments of title to mining lands are carried out by the Branch. Many other administrative functions are performed, such as the preparation of legislation, the maintenance of rolls of all mining lands and mining rights subject to acreage tax and forfeiture, the examination and approval of claim surveys, the control of sand and gravel removal and the supervision of Mining Recorders' offices.

The *Mining Commissioner* acts in cases which, prior to its dissolution in 1956, were brought before the Ontario Mining Court. Disputes concerning mining lands may be argued and decided before the Commissioner, who also

has the authority to grant extensions of time for the performance of working conditions, renewals of miners' licences and easements over land where right-of-way is required in connection with mining operations.

As an aid to mining and prospecting in Ontario, analytical laboratories are operated by the *Laboratories Branch* of the Department at Toronto and Cobalt. Mineralogical, fire assay, chemical, spectographic and allied facilities are provided for the testing of ores, minerals and rocks.

Part VIII of The Mining Act sets down in detail the rules governing the operation of mines and contains many regulations concerning the prevention of accidents. The *Mines Inspection Branch* regularly examines mines, quarries, sand and gravel operations, clay and shale pits and metallurgical works and inspects contract diamond-drilling activities to ensure proper conditions of health and safety for the men employed. The Branch also supervises mine rescue teams and operates the cable testing laboratories where as many as 2,000 tests are made annually. Safety regulations applicable to mining and quarrying operations and to mining property and equipment were further strengthened in 1959.

The *Chief Accountant and Mine Assessor* is responsible for the administration of The Mining Tax Act. This Act is designed to impose a tax on the profits derived from the exploitation of the Province's mineral resources. In most cases, compensation consists of a royalty tax based on profit earned by actual operations, although gross production (in the case of oil and gas) or acreage of mining lands under The Mining Act also serve as bases.

Originally designed to foster the development of Ontario's mineral wealth, the mining and access roads program was initiated in 1951. By 1955, the importance of the program became apparent, and its base was broadened by making it an interdepartmental responsibility. This program has had the added beneficial effect of opening up large areas of hitherto inaccessible forest land, making possible the settlement of potentially valuable land, encouraging tourism and improving communications for outlying communities. At the end of 1959, the work undertaken by the Department of Mines under its Mining and Access Roads Program had resulted in the construction of more than 500 miles of road at an overall Provincial expenditure of \$6 million. Four more access roads with a total length of 22 miles have been completed since. In December, 1959, a Federal-Provincial agreement was signed, covering the construction of many hundreds of miles of access roads, mainly in the northern part of Ontario, involving an expenditure of \$15 million by March 31, 1967.

Ontario's mineral industry has, in the post-war period, been characterized by brisk activity and a rapidly increasing output. A new record was established in 1960, when the Province's mineral production reached a value of \$984 million, more than five times the 1946 level. Ontario now

accounts for over 40 per cent of Canada's total value of mineral production.

MUNICIPAL AFFAIRS

In Canada, the legislative responsibility for local government rests with the provinces. Ontario discharges this responsibility through a number of enactments, the chief of which is The Municipal Act. It provides for the creation of various kinds of municipal corporations able to exercise certain powers, including that of raising money by direct taxation and through the issuance of debentures.

There are 38 counties, 30 cities, eight separated towns, 150 towns, 154 villages, 575 township municipalities, 20 improvement districts and 11 districts in the Province of Ontario.

The Department of Municipal Affairs was created in 1934 to administer Ontario's municipal legislation and, more specifically, to solve the problems caused by the financial troubles which many municipalities were suffering at the time. Officials of the Department supervised the affairs of about 40 such municipalities until their financial stability had been restored. The experience gained at that time has since been turned to good account in giving advice and assistance, especially to smaller and younger municipalities, on the various problems that confront them. However, the Department consisting of five branches—Administration, Development and Special Projects, Auditing and Accounting, Assessment and Main Office—had been carrying out its functions in the face of certain difficulties which have emerged over the years. The rapid growth of population in the Province's cities, towns and villages, the reduction in working hours and the consequent increase in leisure time, as well as the widespread use of automobiles, have all brought with them a revolution in the wants and needs of the predominantly urbanized Province of Ontario. This has meant that demands for facilities, amenities, social service and education, not clearly foreseen a few years ago, are now being made upon the municipal authorities. The Committee on the Organization of Government in Ontario which was established in June, 1958, therefore recommended that the Department of Municipal Affairs be expanded to handle all the responsibilities of the Provincial Government in the municipal field in order to centralize the administration dealing with municipal problems and to bring them under a responsible Minister of the Crown.

On the Committee's recommendations, a major reorganization was effected on April 1, 1960. The Department of Municipal Affairs was expanded to include some of the functions of the Ontario Municipal Board and placed under a single Deputy Minister. A General Counsel and Executive Assistant responsible for the complete reviewing and revising of the present municipal statutes was also appointed. The Department itself was divided into three main divisions—Administration, Finance and Community

Planning. Each branch is headed by an Assistant Deputy Minister and functions directly under the Deputy Minister of Municipal Affairs.

The *Administration Branch* which has maintained most of its former functions is mainly responsible for supervising a number of improvement districts and providing advice to municipalities upon request. The improvement district is an intermediate form of municipal corporation designed for the administration of new, developmental municipalities until they are able to shoulder all the responsibilities of self-government. It has been used with great success in forming new communities arising from natural resource development in the more sparsely settled parts of the Province.

The *Finance Branch* which is a new branch in Municipal Affairs will be very closely connected with the Treasury Department. Its duties include constant scrutiny and advisement on the fiscal problems of the municipalities including the very wide and important areas of revenue and provincial-municipal relations.

The *Community Planning Branch* comprises the Community Planning Branch formerly under the Department of Planning and Development. The various activities of this Branch involve aspects of planning such as the reviewal of sub-division stages and zoning by-laws. The Branch also regards the encouragement of local municipalities to undertake the support of active planning programs as another of its primary functions. Further than this, it undertakes various research, promotional and educational activities through which municipalities are helped in facilitating their planning programs. By sponsoring and organizing planning conferences, sending staff to visit local municipalities and to assess their problems "on-the-spot", and through various publications, this Branch takes an active role in ensuring that Ontario's communities are as attractive as possible.

The *Ontario Municipal Board* had performed its vital and difficult role of responsibility for municipal expenditures, zoning regulations and official plans, with great distinction especially since its area of jurisdiction was expanded in the thirties, but, it could not handle all the emerging municipal problems. Some of its duties were therefore transferred to the new Department of Municipal Affairs, and a revision will be made of the Board's responsibilities. The Board will operate directly under the supervision of the Deputy Minister of Municipal Affairs.

The *Ontario Water Resources Commission*, set up in 1956, and whose functions and incidence are almost purely municipal, now operates under the Department of Municipal Affairs. This will facilitate municipalities in dealing with their fiscal and physical problems in relation to water resources, sewage and pollution.

The officials of the Department are responsible for the processing of applications for the purchase of municipal debentures on behalf of the *Ontario Municipal Improvement Corporation*. This Corporation, which was estab-

lished in March, 1950, is authorized to purchase debentures issued for water and sewage works and for school purposes. In 1957, relevant legislation was amended to permit the Corporation to increase its maximum holdings of municipal debentures from \$50 million to \$150 million. By the end of December, 1960, its cumulative purchases of debentures aggregated over \$74.1 million, while redemptions totalled nearly \$17.7 million. In this fashion, funds have been made available to municipalities which either were unable to borrow at all, or could not borrow on satisfactory terms.

The Provincial Government has taken the position that the task of providing many important public services should remain with the municipality which is often the most efficient agency for dispensing these services. It has recognized that municipal financial resources are not commensurate with local responsibilities, and accordingly has provided in assistance to municipalities, school boards and other local authorities, huge sums of money which in recent years have approximated more than one-half of the proceeds derived from municipal tax levies. In the fiscal year 1961-62 this assistance totals an estimated \$399 million—an amount equivalent to 45 per cent of current Provincial revenue or more than the receipts obtained by the Province from the three major direct tax fields of corporation income, personal income and succession duties. The aims of this reorganization were, therefore, to simplify municipal procedures by placing those functions which were formerly carried out by other departments under the administration of the Department of Municipal Affairs and to make it possible for all Government services to play their full part in meeting the problems of the municipalities with maximum efficiency.

COMMERCE AND DEVELOPMENT

Established in 1944 as the Department of Planning and Development, this Department works with other Ontario departments, with the Federal and Provincial Governments and with municipal councils. There is extensive co-operation, as well, with agricultural, industrial, labour, mining, trade and other associations and organizations, with immigration authorities and with all groups interested in developing Provincial industry and resources and in promoting sound community growth.

The *Trade and Industry Branch* was established in 1945 to promote the economic growth of Ontario through assistance to new trade and industrial development. The Branch provides résumés and analyses of municipal and industrial statistics, advises commercial and industrial organizations in respect of establishment or expansion, and assists firms to select suitable industrial locations, to obtain raw materials and to develop their domestic and export trades. The Branch supports and works with the several regional development associations in which groups

of municipalities band together to foster development in their areas.

Chicago and New York offices of the Trade and Industry Branch provide a direct service to manufacturers in the United States who are planning to establish plants in Ontario, while Ontario House in London, England, fosters trade between Ontario, the United Kingdom and Western Europe and encourages the establishment of overseas industries in the Province.

Close liaison is maintained with the Ontario Research Foundation—an agency that provides scientific and technical information based on laboratory research, designed especially for the benefit of Ontario's medium-sized and smaller industries which cannot support research staffs of their own.

With the continued steady growth in our population and in industry, the Government has recognized the problem of maintaining adequate and safe water supplies for all residents of the Province. Conservation measures are essential to the success of this aim and the *Conservation Branch* assists local authorities by conducting surveys, recommending conservation measures and providing technical and financial assistance in carrying them out.

Conservation projects cover flood control, land use and soil erosion, forestry, wildlife, recreational areas, and historical research, with special reference to natural resources. Some 438 municipalities are now participating in 30 conservation authorities, taking in a total area of 19,353 square miles. Conservation projects completed, now under way or planned comprise an investment of \$135.5 million.

Under the Province's second mortgage plan, initiated in 1948, special housing loans, totalling nearly \$17 million, were made between 1948 and 1950 through the *Housing Branch* of the Department when regular sources were unable to supply the post-war demand for building funds. In 1950, The Housing Development Act was amended to permit the Federal and Provincial Governments to undertake jointly low-cost housing developments and assemble the serviced land for subdivisions badly needed by an expanding population.

Grants-in-aid of qualified community building developments are offered under Federal-Provincial partnership to undertake economical joint-housing projects. These projects generally take two forms: (a) Land Assembly, where vacant land is purchased, serviced and then sold in the form of residential building lots to builders and directly to private persons of modest means; and (b) Rental Housing, where vacant land is purchased and serviced for the erection of low or moderate cost rental housing accommodation. Rental housing may also be constructed under Federal-Provincial partnership provisions on land in a re-development area which has been purchased and cleared by a municipality with the aid of a grant under the N.H.A. From the inception of the public housing program in 1952 to the end of 1960, 35 land assembly

projects and 42 rental housing projects were completed in all parts of the Province. Ontario's appropriations for Federal-Provincial housing projects in the fiscal year 1961-62 amounted to \$5.8 million.

The *Civil Defence Branch* provides a comparatively new Government service initiated by the Department in 1955. It co-operates with the Government of Canada and municipal councils in establishing a means of survival should present world tension develop into a thermo-nuclear war. The function of this Branch is to prepare, administer and carry out plans relating to civil defence within the Province of Ontario, to direct and co-ordinate the activities of all organizations for civil defence within the Province and to maintain liaison with all civil defence agencies and organizations of the Government of Canada, of the other provinces and of the nearby states of the United States of America.

The direct responsibility for organizing civil defence remains with the municipality which operates such emergency and humanitarian services as fire, police, health, welfare and utilities. In order to mobilize civilian resources in a given area, all municipalities in a county or district are being influenced to organize civil defence on a county or district basis so that mutual aid can be rendered between municipalities, and from one county to another. The Federal and Provincial Governments share in the cost of municipal civil defence.

The *Ontario-St. Lawrence Development Commission*, established by statute in 1955, is represented in the Legislature by the Minister of Commerce and Development. Two main responsibilities rest with the Commission with respect to the development of the St. Lawrence Valley. One is to develop and maintain from Lake Ontario to the Quebec boundary, Provincial parks and historical places of interest, including Fort Henry, Upper Canada Village and Chrysler Memorial Park. The other is to investigate any matter affecting the welfare of the municipalities in the St. Lawrence Valley.

On April 1, 1960, the *Ontario Northland Transportation Commission* which operates the Ontario Northland Railway from North Bay to Moosonee as well as telecommunication lines of Ontario Northland Communication was transferred from the Department of Municipal Affairs to the Department of Commerce and Development.

PROVINCIAL AUDITOR

The Provincial Auditor occupies a unique position of independence and impartiality within the Provincial administration. His primary duty is to audit and report upon the conduct of the business of Government on behalf of the elected representatives of the people. While he is appointed by the Lieutenant-Governor in Council he may not be removed nor his salary reduced except on address

the Legislative Assembly. Thus his objectivity is buttressed by a strong security of tenure.

The Provincial Auditor conducts a continuous examination and audit of transactions of Government. The results of the operations for each fiscal year are set out in the Public Accounts which are prepared under his direction and delivered by him to the Lieutenant-Governor for presentation to the Assembly within the first ten days of the first session held in the following calendar year. The Auditor's report upon the accounts is appended to the Balance Sheet in the Public Accounts with reference to his formal report which takes the form of a separate publication entitled the Provincial Auditor's Report.

In his report the Auditor endeavours to see that the results of the Government's operations are clearly stated so that they may be readily studied and their full significance appreciated. While he is required to report on the scope of his examination, Treasury Board orders, Special Warrants issued and other matters, he is also free to comment on whatever he may desire to bring to the attention of the Assembly, a prerogative he has not hesitated to use and which forms a further check-point in our system of financial control and accountability.

In day-to-day operations, the Provincial Auditor carries on a continuous examination of all expenditures from the Consolidated Revenue Fund and in doing so countersigns all cheques and certifies that there are funds available and legislative authority for each such payment. In addition, his staff is continually making audits of revenue accounts and records of the Consolidated Revenue Fund.

In addition to his duties in connection with the audit of the Government's transactions, the Provincial Auditor conducts audits of such Boards, Commissions, and Crown instrumentalities as may be required by various governing statutes and directives.

PROVINCIAL SECRETARY AND CITIZENSHIP

The Department of the Provincial Secretary carries out a variety of functions. The Department acts as Secretary to the Legislature, performs constitutional duties on such matters as the incorporation of companies, legalization of marriages, and, through the office of the Chief Election Officer, the conduct of Provincial elections. The office of Queen's Printer also comes under the Provincial Secretary.

The task of handling the tremendous volume of work which passes through the Legislature rests with the Clerk of the Legislative Assembly. He and the Clerk Assistant are the executive of the Legislature with whom all petitions, including petitions for private bills, are lodged. All bills introduced for consideration by the Legislature are in their keeping from introduction until final disposition. The bills which become law are certified by the Clerk and are

retained in his custody. All records of the Assembly are the responsibility of the Clerk.

In 1955, the administration of The Vital Statistics Act, which has been considerably enlarged, was placed under the jurisdiction of the Department. The Provincial Secretary, as Registrar-General, is now responsible for the registration of births, marriages and deaths in accordance with the provisions of the Act.

The *Company Incorporations Branch* of the Department is responsible for the administration of The Corporations Act and other legislation relating to corporations. Because of its expanding industrial economy, Ontario has experienced a continuing increase in the number of Provincial incorporations—from 1,700 in 1947 to 3,500 in 1953, 5,800 in 1959 and 5,794 in 1960. At present there are some 60,500 companies operating in Ontario.

As a separate legal person, and thus a creature of the state, a corporation has not the same freedom of action as a sole proprietorship and must conform to certain laws under which its charter is granted. In 1953, new legislation was drafted replacing the old Companies Act which had not been materially revised in 40 years. Much time and effort were expended by the Legislative Committee appointed for the purpose of studying this type of legislation in other jurisdictions. The new Act is considered to be a model in its field. The activities of the Branch include examining and processing the annual returns of corporations and surrender of charters, the issuing of letters patent, supplementary letters patent, licences in mortmain to hold land and extra-Provincial licences to carry on business in Ontario.

The *Company Returns Branch* collects fees and files returns from companies as required under The Corporations Information Act of 1953, while the *Company Files Branch* records returns of all active and dormant companies registered in Ontario. The Company Files Branch also maintains a system of central files for the use of all offices in the Department.

A range of special services is also provided by various branches of the Secretary's Department. The *Records Branch* is responsible for the security and maintenance of the Province's important records. This involves the indexing and safeguarding of records of documents issued under the Great Seal of Ontario, the Privy Seal of the Lieutenant-Governor and the Seal of the Provincial Secretary. Some of these are Letters Patent of Incorporation and Amalgamation, Crown Land Patents and Leases, and appointments of Queen's Counsels. The *Commissions of Appointment Branch*, under authority of The Notaries Act and The Commissioners for Taking Affidavits Act, performs the paper work in connection with such matters as the issuing of notary public commissions, Queen's Counsel commissions and commissions for the taking of affidavits. The commissions of appointment and their limitations as to jurisdiction in the case of Notaries Public and Commis-

sioners for Taking Affidavits, are recommended by the Inspector of Legal Offices. The *Marriages Branch* administers The Marriage Act, revised in 1950 to permit civil marriages in the Province. The office registers persons authorized to solemnize marriage in Ontario, supplies local issuers with marriage licences and clergy with legal forms, and issues special authorizations to marry. Under Ontario law, marriages can take place by licence or banns. The ceremony can be performed by county court judges and magistrates or by the clergy. There are 175 religious bodies registered for this purpose in the Province and between 10,000 and 11,000 clergymen entitled to perform ceremonies. Currently, there are about 45,000 weddings per year in Ontario.

In 1959, a *Citizenship Branch* was added to the Provincial Secretary's Department to co-ordinate activities of the various Government Departments in respect to new Canadians and act as a counselling and information centre. In the post-war period, about one million new Canadians have settled in Ontario and have contributed much to the economic activity and culture of the Province.

Various boards and commissions report to the Government through the Provincial Secretary. Among these is the *Liquor Control Board of Ontario* which is responsible for administering the sections of The Liquor Control Act relating to the regulation and control of the sale of liquor in Ontario through government-operated stores. Another is the *Liquor License Board*, responsible for carrying out those provisions of the Act governing the sale of liquor in licensed premises.

PUBLIC WELFARE

The Department of Public Welfare administers the Province's comprehensive public welfare measures designed to provide for the special needs of families, the aged, the blind, the disabled and unemployed persons. It co-operates with and supplies advice and assistance to municipal welfare bodies and supervises Provincial and private agencies established to provide for the care of neglected children, elderly and other persons requiring specialized attention.

In recent years, the Province has pioneered much welfare legislation and has made important advances in respect to mothers' and dependent children's allowances, old age assistance, blind and disabled persons' allowances, rehabilitation services, child welfare, homes for the aged and charitable institutions. This has been reflected in the upward trend of the Department's estimated expenditures which amounted to \$49 million in the fiscal year 1960-61.

The services provided by the Department are administered by six branches. Through the *Field Services Branch* the administration of Provincial welfare services has been decentralized in the form of 17 *Regional Welfare Offices* located throughout the Province. Each Regional Office

is responsible for processing applications and the preparation of documents relating to the various Provincial welfare allowances, provides information on welfare programs and gives advice to those requiring or receiving welfare aid. In addition, each office offers advice and direction to municipal welfare offices and examines and approves municipal welfare expenditures shared by the Province.

The *Regional Welfare Administrator* determines the eligibility of applicants for mothers' and dependent children's allowances and establishes the amount of assistance to be granted in each case. When necessary, Regional Administrators also represent the Province in Child Welfare court cases. In the five northern regional offices, the Administrator arranges for general welfare assistance (unemployment relief) and indigent hospitalization for residents in those areas lacking municipal organizations.

Through enabling legislation, the *Welfare Allowances Branch* administers and authorizes the payment of old age assistance, blind and disabled persons' allowances under the joint Federal-Provincial legislation in these fields. On the basis of reports prepared by the Field Services unit, the Branch determines the eligibility of persons for assistance and the amount to be paid to each recipient in accordance with the respective Acts and Regulations. The Branch also exercises general supervision over the administration of the Mothers' Allowances program in the 17 Regional Welfare Offices throughout the Province and renders decisions on special cases through a Board of Review.

In 1929, the old age pension in Ontario was \$20 per month, payable on the basis of a means test to all persons 70 years of age and over who had resided in Canada for at least 20 years. This was increased to \$30 in 1947, and \$40 per month in 1949. The cost of old age pensions, until 1952, was shared 75 per cent by the Federal Government and 25 per cent by the Province.

Ontario spearheaded the decision in 1950 to broaden the scope of Federal-Provincial financial aid payable to our senior citizens. It was agreed to drop the means test for persons 70 years and over and to establish a system of old age assistance for needy persons in the age group 65 to 69 years. The Federal Government now pays the entire cost of the pensions to all who are 70 years of age and over, while the Provincial Government pays half the cost of old age assistance to those in the age group 65 to 69. Ontario also bears the entire cost of administration of the latter program, as well as the costs of administration of the blind and disabled persons' allowances. Further increases in these allowances have been made—the latest in November, 1957—when they were raised to \$55 a month. In addition, the Province supplies medical services for all recipients of old age assistance, blind and disabled persons' allowances and for needy old age security pensioners.

Conditions of eligibility for blind pensions have been

relaxed in recent years and higher maximum incomes have been permitted for such recipients. Residence requirements in all three Federal-Provincial programs, as well as for old age security, have been reduced from 20 to 10 years in Canada.

Another milestone was reached with the enactment by Ontario of The Disabled Persons' Allowances Act in 1952. This Act provided a maximum allowance of \$40 monthly and certain medical services for disabled persons from 18 to 65 years of age, who had resided in Ontario for ten years or more. Three years later, the Federal Government entered this field, to share equally the cost of the program with the Province. During the fiscal year 1955-56, two additional disabled groups—unemployable men whose wives and children were receiving help under The Mothers' Allowances Act, and disabled Indians living on reservations—were covered by disabled persons' allowances. In the fiscal year 1959-60, allowances were paid to approximately 12,000 persons monthly, and the Province's share of the joint program amounted to \$3.9 million.

In 1955, Ontario passed The Rehabilitation Services Act and signed an agreement with the Government of Canada to rehabilitate, train and place handicapped persons and thereby help them to become self-sustaining.

During the 1960-61 fiscal year, an amount of \$12.1 million was appropriated for the payment of mothers' allowances. This was over three times the sum made available in the mid-1940's. The statute governing the allowances was rewritten in 1957 as The Mothers' and Dependent Children's Allowances Act. It embodies previous measures and includes several new benefits. Eligibility has become so broad that almost all types of dependent heads of families with children have been brought under the Act, including a dependent father with a dependent child or children in his care. The provision that an unmarried mother received aid only on condition of having cared for her child for two years, no longer applies. Such a mother may now receive assistance when her dependent child is six months of age. Safeguards for the welfare of all children involved in divorce cases have also been established. In addition, an allowance is paid where a spouse has deserted or has been in prison for six months or more.

The policy aim of these allowances is the preservation of family security and the well-being of dependent children. Since 1956, much effort has been expended on the rehabilitation of unemployable husbands or mothers who are in direct receipt of mothers' allowances. Sizeable increases in benefits payable to these cases have recently been made. Until 1957, for example, the maximum allowance for a mother with one dependent was \$70 monthly plus fuel allowance during the winter months. Now it is possible for a mother in the same circumstances to receive \$120 a month. Allowances are paid on a budgetary basis, in keeping with the individual needs of the family, rather than on a flat rate, as previously. The schedule of allowances

ranges from a maximum of \$120 monthly for a recipient with one dependent to \$180 monthly for a recipient with six or more dependents. In addition to the medical services available to all recipients, dependent children up to the age of 16 years are entitled to dental services. This latter benefit was introduced in January, 1959.

Greater protection and security for children have been prime objectives of the Province, and the present legislation covering this area has been developed by progressive stages over the past ten years. The *Child Welfare Branch* administers The Child Welfare Act and oversees the Children's Aid Societies responsible for carrying out the provisions of the Act. The Branch also has general supervision over children's institutions operated under The Charitable Institutions Act. In addition, it authorizes payment of grants to Children's Aid Societies, to children's institutions and to municipalities as partial reimbursement for expenditures they are required to meet for the children placed in the care of the Children's Aid Societies.

In the fiscal year 1960-61, the Government of Ontario made \$5.3 million available for child welfare. This money was in support of services supplied by Children's Aid Societies, including aid to municipalities and direct payments to the Societies themselves. As provided by legislation in 1957, the municipalities are reimbursed at the rate of 40 per cent (instead of the previous 25 per cent) of their child care costs. The Societies are responsible for the children in their care until such time as they reach 18 years of age or are adopted or returned to their own homes. Where children are placed in foster homes, continuing services are provided by Children's Aid Societies to ensure their adequate care and protection. Adoptions of children are also arranged through Children's Aid Societies.

Provincial grants are made to Children's Aid Societies to support services rendered to children in their own homes. These are known as protection services. The grants have been designed to combine economy with the most effective method of safeguarding the children themselves. They are based upon the amount of time devoted by the Societies to the prevention and repair of family breakdown. This, in turn, results in reducing the proportion of the child population in the direct care of the Societies. Previously, grants were related to the amount of voluntary funds collected, rather than to the way in which the monies were spent. The result was that the largest grants were paid to the Societies with the largest financial resources. The work of prevention is now the principal component of the protection services grant computation.

Through The Children's Boarding Homes Act, 1957, the Child Welfare Branch seeks to safeguard the welfare of children placed by their parents in private boarding homes offering group care to children from five or more different families.

The need for the continuance of day nurseries—supported during the war by the Federal Government—was recognized by the Government of Ontario with the passage in 1946 of The Day Nurseries Act. Under this legislation, the Province pays half the net operating cost of licensed municipal day nurseries. In Ontario, there are nearly 300 day nurseries both public and private, under the supervision of the *Day Nurseries Branch*. In the fiscal year 1960-61, the Province provided \$255,000 to share, on an equal basis with municipalities, the cost of operating the public day nurseries.

An amendment to The Charitable Institutions Act in 1951 authorized the Province to pay capital grants of \$1,000 per bed for new buildings constructed by religious, fraternal and charitable organizations which provide accommodation and care for children, the aged and other needy persons. A rewriting of the Act in 1956 enabled the Government to contribute 50 per cent of the cost of new construction up to a total of \$2,500 per bed. If the extra bed capacity is obtained by acquiring buildings already constructed, a subsidy of 50 per cent of the cost incurred by an institution is payable up to a total of \$750 per bed. Further improvements and refinements of Ontario's program in this field took place in 1958.

The *Homes for the Aged Branch* is responsible for the general supervision of homes for the aged which are operated both by municipalities and by private organizations. These homes are inspected regularly and advice and assistance are given to the administrative staffs of these institutions concerning administration and improvements in facilities. The Branch also authorizes payment of grants to municipalities and private organizations operating these homes. As announced in the 1958 Budget Address, the Ontario Government undertook to meet 75 per cent of the deficits incurred by approved charitable organizations in providing accommodation for the aged. The Province also subsidizes the erection of low-rental housing units for elderly citizens under The Elderly Persons Housing Aid Act.

The Homes for the Aged Act inaugurated a full-scale program to assist in the expansion or renewal of municipally operated institutions for elderly persons in 1949. Since then, 23 new homes have been constructed and 25 homes have increased their capacities by additions or extensions. The Province contributes 50 per cent towards the cost of all such construction and equipment.

In 1958, the Province commenced to pay 70 per cent (previously 50 per cent) of the continuing costs incurred by municipalities for the operation and maintenance of their homes for the aged, including the maintenance of the residents. Care provided for the residents includes: normal residential care for ambulatory persons, accommodation for married couples, bed care for bedridden or semi-bedridden persons and special care for the mentally confused and those suffering from the effects of senility. The

1960-61 appropriations for the care of the aged under The Charitable Institutions Act, The Homes for the Aged Act and The Elderly Persons Housing Aid Act, totalled over \$8 million.

An important facet of the welfare program administered by the *General Welfare Assistance Branch* is aid to needy unemployed persons. (The former Unemployment Relief Act was replaced by The General Welfare Assistance Act, 1958, proclaimed in force on January 1, 1959.) Payments are based on schedules which take into account the cost of food, clothing, household sundries, fuel, shelter and medical services, as well as special forms of assistance such as incapacitation allowances, post-sanatorium allowances and nursing home care. Rates for direct relief assistance were set in 1957, ranging from a maximum of \$120 per month for the head of a family with one dependent to \$180 per month for the head of a family with six or more dependents.

The responsibility for providing assistance to unemployables has traditionally fallen to the provinces and municipalities, while responsibility for employables not in receipt of unemployment insurance was not clarified until late in 1957 when the Federal Government agreed to pay half the cost of relief to both unemployables and employables in this category.

Until December, 1956, Ontario and the municipalities shared equally in the cost of standard budgetary allowances to unemployables. Greater aid was provided to the municipalities in 1957-58, when the Province's share was raised to 60 per cent. On December 1, 1957, the Province undertook to reimburse the municipalities for 80 per cent of their outlays on direct relief. This arrangement was made possible by the new agreement, referred to in the previous paragraph, under which the Federal Government began to contribute 50 per cent of the cost of all relief to unemployable and employable persons. Ontario appropriated \$6.5 million in the 1960-61 fiscal year for general welfare assistance.

An emergency plan was introduced by the Ontario Government in February, 1958, to stimulate employment for the needy who were able to work, but who were not eligible for unemployment insurance benefits. The Province reimbursed municipalities to the extent of 70 per cent of their direct labour costs on special works programs undertaken during the winter and early spring. In the winter and spring of 1959, a basically similar, but considerably broader scheme was implemented and the Federal and Provincial Governments paid 75 per cent of direct labour costs incurred by the municipalities.

One of the most unique welfare measures, The Homemakers' and Nurses' Services Act, came into force officially on August 1, 1958. This legislation recognizes the need to provide the services of homemakers or nurses to families and individuals, particularly when emergencies arise. The Act permits the Province to share 50 per cent of the

costs incurred by municipalities in making these services available to their people. Maximum costs in which the Province will share are \$8 a day for a homemaker's services and \$2.50 a visit for a nurse's services. The program offers a workable alternative to hospitalization and enables families and individuals to remain in their own homes whenever possible.

Other recent advances in the Provincial welfare program include: an increase in the Province's contribution towards medical costs for persons on general welfare assistance—raised from 60 to 80 per cent; the assumption of 80 per cent of the total cost of post-sanatorium allowances and nursing home care burdens carried entirely by the municipalities in the past; and the extension of hospital insurance to all recipients of public welfare as of January, 1959.

PUBLIC WORKS

The Department of Public Works is one of the few Provincial Departments which dates back to Confederation. Since that time, the Minister of Public Works has been responsible for supplying the Departments of Government with the accommodation necessary to house their manifold administrative and service operations. Governmental functions have been extended and improved quite radically in the years since World War II—both as a result of, and in order to promote the rapid development which Ontario is enjoying—and the Department of Public Works has been expanded to provide quarters for these enlarged activities.

The Department is responsible for the maintenance of all Government properties. These include the Parliament Buildings in Toronto, other Provincial Government office buildings, the several large agricultural colleges, the district jails, the reformatories, the Ontario hospitals and the Ontario Provincial Police buildings. The Department has also been active in the construction of many capital projects associated with water and soil conservation and drainage throughout the Province. In the fiscal year 1961-62, the Department's appropriation for net capital expenditure on new construction, including extensions to existing plants or buildings, dams, docks and drainage, amounted to \$44.0 million. Ordinary expenditure for the fiscal year 1960-61 is estimated at \$11.3 million.

During the past year, the *Architectural Division* and the *Engineering Division*, formerly under separate Deputy Ministers, were brought under a single Deputy Minister, and the operations of the Department streamlined to cope more efficiently with the vastly augmented services.

The *Architectural Division* of the Department deals with the planning, design and erection of all Ontario Government buildings and additions to buildings, and with the maintenance, operation and fireproofing of existing buildings. This Division also arranges for the installation of furnishings, mechanical and hospital equipment, as well

as powerhouse and laundry equipment, and other ancillary facilities. In addition, it is responsible for the internal communication systems in all government office buildings within Metropolitan Toronto and in buildings outside Toronto that are occupied by more than one department.

The *Engineering Division* prepares plans and specifications for the construction of outside sewage and water services and constructs and maintains roads and walks. The Division builds and maintains locks, dams and navigable channels in inland waterways and is responsible for the operation of one system of locks and dams. Grants to municipalities in aid of farm drainage are administered by this office in accordance with the provisions of The Provincial Aid to Drainage Act, 1954. Many construction projects are carried out by the Department's own work forces where it has not been possible to obtain a satisfactory number of tenders.

Many different types of construction are undertaken by the Department. The construction of an Ontario Government building to house five Government Departments at Sault Ste. Marie, commenced in August of 1960, is well advanced while a new office and stores building for the Department of Public Works at McFarlane Lake, Sudbury, is rapidly nearing completion.

The facilities of the Department of Agriculture were again extended during the past year. At the Ontario Agricultural College, Guelph, a refrigeration storage building, begun in May 1960, is structurally completed with interior work in progress. Erection of a new Piggery and Boar Pen is under way and an addition to the powerhouse in the nature of a Water Softener building is progressing favourably.

A new Agricultural Service Centre at Brighton was started in July 1960 and is now in the well advanced stage. The completed Regional Veterinary Laboratory at Kemptville Agricultural College was occupied and officially opened in June 1960. Later work at this college comprised a Students' Residence for Girls which is now nearing completion. Ridgetown Experimental Farm acquired two new buildings. A new Abattoir and Animal Husbandry building was finished in December 1960 and a new Agronomy building was structurally completed in November of the same year. Considerable progress has also been made on the erection of a Beef Barn. Work was commenced last August on the construction of a new Agricultural Service building at the New Liskeard Demonstration Farm. Construction on this project is well advanced.

New buildings for the Ontario Agricultural College at Guelph are in the planning stages. These consist of a new Science building and a new Multiple Home Management building at MacDonald Institute. Future construction for the Ontario Veterinary College at the same site will comprise a new building for the production of disease-free pigs and a new Poultry Virology and Pathology building.

The program of expansion for the Ontario Provincial

Police continued with the building of a new headquarters' structure and a detachment building. Burlington was chosen as the site for the fourth new district headquarters' building following the pattern of those erected in previous years at Barrie, Port Arthur and Niagara Falls. Construction started in September 1960. Contracts were awarded and preliminary construction is under way for two other headquarters' buildings—one at Belleville and the other at Cornwall. A medium type detachment building is well on the way to completion at Espanola.

New construction on the planning boards for the Attorney-General's Department includes new district headquarters' buildings at London and Timmins. Detachment buildings are planned for the following locations—Atikokan, Bruce Mines, Emo, Goderich, Guelph, Longlac, Picton, Wawa, Kapuskasing, St. Catharines, Manitouwadge, Thessalon, Port Lambton, White River, Welland, Upsala, Marathon and Powassan. New Registry and Land Titles Office buildings are proposed for Kenora and Parry Sound.

For the Department of Education, the new Assembly Hall at the Ontario School for the Blind, Brantford, was finished in October 1960 and the Junior School Addition was completed in the following month. The new addition to the Hamilton Teachers' College was structurally completed and interior work is being advanced. At Port Arthur, a new teachers' college to serve the Lakehead area is being built. Three additional temporary buildings were constructed to serve the Institute of Technology at Windsor. In Toronto, as part of the winter works program, old buildings at the Ryerson Institute of Technology are being demolished. This work is preparatory to the erection of Unit No. 3 which will complete the building program for this school. In the design stage is a new School for the Deaf at Milton. New teachers' colleges are scheduled for St. Catharines, Ottawa and Sudbury and new Institutes of Technology for Ottawa and Northern Ontario. A Vocational School building is planned for the Ontario School for the Deaf at Belleville.

The greatest effort of the year's construction program lay, however, with the Department of Health in their drive for increased accommodation and facilities for the mentally ill. The new 600-bed hospital group at Hamilton, embodying the latest in accommodation and scientific advancement for the care of the mentally ill, was completed and occupied. The new mental health clinic on the same site was also finished. Excellent progress was maintained during the year on the new Ontario Hospital Training School for Retarded Children at Cedar Springs near Chatham. This group of buildings has been designed to accommodate 1,250 juvenile patients. Facilities at the Ontario Hospital, Port Arthur, will be augmented with the addition of a Clinical Services group of buildings. The new unit, now under construction, will comprise three wings—central building and male and female wings—and a powerhouse.

The former Adam Beck Sanitorium at Byron, near London, acquired last year to serve as a psychiatric research institute for children, has been undergoing extensive renovation. The first stage was completed and work is now under way on the second stage.

In Toronto, a section of property was purchased for the establishment of an Alcoholism Research Foundation Clinic on Harbord Street. This property contains several apartment houses and residences. Present plans call for retention of the apartments for conversion into offices and demolition of the houses to provide for future construction.

An addition to the Radiation Protection Laboratory at the Central Laboratory on Christie Street, Toronto, is structurally completed with interior work in progress, and an addition to the sub-station is also under construction. Extensive work was carried out on Dining Room and Serveries, and a new Laundry building was finished and placed in operation at the Ontario Hospital, Toronto. In August, 1960, the new gymnasium and swimming pool was finished at the Thistletown Ontario Hospital. Dining room additions to the male and female pavilions at the Ontario Hospital, Whitby, are substantially completed and the new Head Office building for the Ontario Hospital Services Commission on Toronto's Yonge Street is finished. Extensive renovation and fireproofing is under way at the Ontario Hospital, Woodstock, for the old chest diseases' unit.

At Goderich, preliminary construction is being carried forward on a new 300 bed mental hospital for the aged. This will be a departure from the institutional and stresses a new concept of treatment in a series of single-storey cottages joined to two-storey administration and service wings. Tenders have been called for a similar 300-bed hospital at Owen Sound with still another hospital of this nature planned for Palmerston. Another new venture just started is the Nightingale School of Nursing building located at Elm and Murray Streets in the University Avenue area in Toronto. The new school will provide accommodation for 138 resident student nurses in a six-storey slab block raised above two academic and administrative floors.

New construction on the planning boards for Health includes: a 900-bed hospital school for northern Ontario; new accommodation for 600 patients at London Ontario Hospital; a day and night care centre for Windsor; a new hospital school for the Niagara Peninsula; a reception centre for the Ontario Hospital in New Toronto; a nurses' residence for the Ontario Hospital at Hamilton; an auditorium and gymnasium, and a new kitchen, for the Ontario Hospital, Toronto; a nurses' residence for Kingston Ontario Hospital; a new School building for the Ontario Hospital at Orillia and a new Clinical Services structure for the North Bay Ontario Hospital. Also in the planning

stage—as a joint project with the University of Toronto—is the construction of a \$6 million Psychiatric Hospital on the site of the old Grace Hospital at the corner of Huron and College streets in Toronto.

Recently, two building projects for the Department of Highways were completed at Burlington consisting of a new office building and the Skyway Toll Plaza Administration building. In addition, a district office building at Ottawa was completed in early 1961 and is now occupied by personnel of the Department of Highways. Planned for future construction are a district repair garage and two 9-bay heated storage buildings for Fort William and an 8-bay patrol garage for Morriston. Furthermore, a district repair garage has been proposed for Sault Ste. Marie and a 10-bay patrol garage for Grafton.

For the Department of Lands and Forests, an 11-bay district office building was finished at Geraldton in 1960 and a park concession building at Kakabeka Falls. Construction planned on behalf of this Department includes a chief ranger's headquarters for Parry Sound and Sudbury, a district office building at Cochrane and a forest research building for Maple.

A major project was completed in October 1960 for the Department of Reform Institutions in the form of a new 200-bed dormitory and cells group at the Industrial Farm, Burwash. The new powerhouse at Burtch Industrial Farm was completed in late 1960 and a similar installation is underway at the Mimico Reformatory. Contract operations for the new girls' training school at Lindsay to accommodate 130 girls commenced in August 1960 and earlier in the year, tenders were called for a boys' training school at Simcoe designed to house 125 persons. New construction planned for the Department includes an Industrial Farm at Elliot Lake, a new dormitory and staff residence for Fort William Industrial Farm, an addition to the powerhouse at Guelph Reformatory and new additions to the district jails at Port Arthur and Fort Frances.

The Department is preparing a master plan which is designed to bring most Departments of the Government back to Queen's Park and to reorganize the parkland itself as an appropriate setting which will enhance the capital of the Province. To this end, the two old buildings on Queen's Park Crescent as well as the former Ontario Provincial Police Headquarters on Surrey Place, have been demolished. Recent announcements by Prime Minister Frost and other Government sources indicate much future expansion in the Government's building program, particularly in the area of the Parliament Buildings at Queen's Park, Toronto. In November, 1959, it was announced that arrangements had been made for the purchase of a city block immediately east of the Parliament Buildings, from the Sisters of St. Joseph, for \$5 million. About the same time, a 12-storey building, located at College and Bay Streets, was purchased at a cost of \$2,700,000.

REFORM INSTITUTIONS

The problems of reform are often the problems of youth. In Ontario, more than one-quarter of those committed to reform institutions are under 25 years of age. In dealing with such persons, the Department's efforts have been directed largely towards the development of character, self-discipline and honest work habits.

By far the most marked advances in this direction have taken place since the establishment of the Department of Reform Institutions in 1946. During this period, the Department has undertaken a complete re-organization of penal policy based on exhaustive investigations of the latest reform methods being practised both in Europe and the United States. The result has been the incorporation of many new techniques and ideas into the Province's penal program. The "Ontario Plan" involves vocational, academic and physical training and places special emphasis on the use of such modern methods as group therapy, diagnostic study, psychiatric, psychological and sociological assistance, especially in the treatment of juveniles and first offenders. Inmates may advance their academic standing as far as matriculation and may also learn useful trades in these institutions. Girls may obtain academic training as well as instruction in home economics, child care and home nursing.

The Department today has full control over seven reformatories, five industrial farms, eight district jails and five training schools. It also has authority to supervise and inspect two city jails, 35 county jails and three private training schools, the three latter institutions being operated by the Roman Catholic Church. The primary aim of all these is to reform, rather than to punish, on the ground that this approach is more effective in preventing recidivism. But, at the same time, it is necessary to emphasize incarceration in the case of certain hardened offenders who are a menace, not only to the general public, but also to other more amenable prisoners. Offenders are now screened through a new penal classification system in order to determine the particular treatment they should undergo.

One of the major aspects of the rehabilitation program is constructive work. Instead of being punished with the debilitating frustration of purposeless activity, prisoners are kept busy producing a wide range of agricultural and industrial goods. These are used to feed, clothe and equip both staff and inmates throughout the system. Surplus output is sold to various Government Departments. Over 100 different consumer goods with an annual sales value of \$3 million are now produced.

In keeping with the emphasis on rehabilitation, the Department maintains five training schools for juveniles. Every child sent or committed to a training school becomes a ward of the school until he or she reaches the age of 18 or wardship is relinquished.

There are three schools for boys and two for girls. Boys

14 and 15 years of age are placed in a school near Bowmanville, while those under 14 go to one on the outskirts of Cobourg. A third institution, opened in 1958 at Guelph, is a closed school for boys who prove to be unmanageable in the more open type. A training school for girls under 16 is located in Galt. A second training school for girls was opened during 1959 at Trelawney House, Port Bolster. This pilot school provides accommodation for some 20 girls of the younger age group who are likely to benefit from a more homelike environment and atmosphere. Academic and vocational training are given and psychological and psychiatric services provided at all these schools.

Treatment and rehabilitation of prisoners suffering from alcoholism, drug addiction and neuro-psychiatric disorders are provided at *Special Treatment Centres*. The Alex G. Brown Memorial Clinic for Alcoholics is operated as an independent unit at the Ontario Reformatory, Mimico. The patients are drawn from the reformatories and industrial farms of the Province. The Neuro-Psychiatric Centre for male prisoners is located at the Ontario Reformatory, Guelph. Inmates are transferred to this centre only after exhaustive medical and psychiatric tests have been made. Besides providing special treatment for psychiatric and neurological disturbances, the centre also carries out a considerable amount of research in this important field. A Rehabilitation Centre for female first offenders has been established at the Andrew Mercer Reformatory.

In January, 1956, the Department of Reform Institutions established a clinic where male inmates, addicted to narcotics, could receive treatment. The new clinic has accommodation for 25 patients and is still a pilot unit capable of expansion as the need appears. For administrative purposes, it is combined with the clinic for alcoholics at Mimico, but is self-contained in all other respects. As with the other specialized clinics of the Department, patients for the narcotics clinic are accepted on a voluntary basis and treatment covers the last three months of their terms.

Post-discharge rehabilitation is the responsibility of the clinic staff and of the Department's *Parole and Rehabilitation Officers*. These officers have the task of giving guidance and practical assistance to all prisoners after their sentences and treatments have been completed. The help given to discharged inmates takes such form as arranging for board and employment, supplying necessary tools and equipment for civilian employment, and establishing desirable social contacts.

The most recent addition to the Province's program for rehabilitation is Ingleside, the Ontario Women's Guidance Centre, at Brampton. It is an open custody institution for women of 16 to 35 years of age. These are selected from the most reformable inmates of Andrew Mercer Reformatory. A program of academic and

vocational training is carried on. Facilities are available for a maximum of 25 offenders.

Two special boards, the *Board of Parole* and the *Training Schools Advisory Board*, work in conjunction with the Department of Reform Institutions. The members of both are appointed by the Lieutenant-Governor in Council. The responsibility of the Board of Parole is to interview each prisoner who is given an indeterminate sentence and decide whether or not he should be released on parole under the supervision of Parole Officers. To this end, the Board meets at the Reformatories and Industrial Farms once a month. The Training Schools Advisory Board advises the Minister with respect to the administration of The Training Schools Act and of the training schools themselves. It is concerned with all matters affecting the welfare of the young people placed in these schools.

A *Staff Training School* at Guelph provides instruction in various aspects of modern penology. The faculty consists of experienced officials from various reform institutions and is augmented by visiting lecturers, each a specialist in his own field.

Recommendations for a revision of the Canadian penal system have been set out in the Fauteux Report. If implemented, these would bring about many changes in the correctional program of the Province. Under such revision, the Province would be responsible only for persons sentenced to terms of six months or less whereas now all offenders with terms of under two years come under Provincial jurisdiction. Until such time as plans are completed for the implementation of the recommendations in the Report, including the development of a new classification system and the provision of additional accommodation, it will not be possible to assess the extent of changes which will be necessary in Ontario.

TRANSPORT

Prior to 1957, the Department of Highways was concerned not only with the construction and maintenance of Provincial highways, but also with the regulation, taxing and licensing of motor vehicles using the highways. Owing to the growing complexity of these functions, a new Department of Transport was established. This followed a recommendation by the Legislature's Select Committee on Toll Roads based on the desirability of separating problems connected with the roads themselves from those related to the users of the roads.

One of the responsibilities taken over by this new Department is that of motor vehicle registrations. An all-time peak was reached in 1960 with the registration of over two million vehicles by the *Licensing Branch*. Over three-quarters of these are passenger cars, while the remainder, with the exception of some 9,000 motorcycles, are commercial vehicles.

Congestion and accidents have been by-products of the

tremendous advance in the number and use of vehicles. Efforts are constantly being made to improve driver ability and efficiency. The *Driver Control Branch* has established Driver Examination Centres at strategic points throughout the Province to provide for a stricter screening of prospective drivers.

Effective July 1, 1959, driving instructors in Ontario were required to be licensed by the Department of Transport to ensure that their teaching is of the highest possible standard.

To encourage the development of driving instruction in schools, temporary instruction permits may now be issued for a period of 120 days, in contrast to the normal 60 days, to students enrolled in a bona fide driver education course in a high school, collegiate institute, vocational school or private school. The Department assists in the setting up of such courses.

In an effort to segregate and remove unsafe drivers from the highways, the Department brought into effect a driver demerit point system on April 1, 1959. The intention of the scheme is to improve bad drivers, through warning letters at six points and interviews at nine points. The suspension of licences at twelve points is an unavoidable last step. The number of points an offender receives varies with the gravity of the offence for which he has been convicted. Already, the program has been effective in reducing highway accidents and in encouraging better driving.

The Driver Control Branch is now responsible for the administration of the financial responsibility provisions of The Highway Traffic Act. In 1958, the maximum amounts payable from the Unsatisfied Judgment Fund were raised to \$10,000 for death or injury of one person, \$20,000 for death or injury of two persons, and not more than \$2,000 for property damage. Owners of uninsured vehicles were called upon to pay an additional \$5.00 charge for motor vehicle permits. The extra revenue received from this source was credited to the Unsatisfied Judgment Fund to pay claims for damages arising out of accidents involving uninsured motor vehicles. The experience is that this added fee is encouraging uninsured motorists to obtain their own coverage. It is estimated that over 90 per cent of Ontario's vehicles were insured in 1959, as against 78 per cent in 1957. During the year ending March 31, 1960, \$2,497,212 was paid out in settlement of 882 judgments.

In September, 1957, the *Research Branch* was established for the purpose of analyzing and reporting upon a wide variety of problems within the transport field including motor vehicle taxation, and ways and means of improving the system of licensing and controlling motor vehicles in Ontario. In co-operation with the *Motor Vehicles Branch* and the Ontario Research Foundation, the Research Branch recently conducted a series of tests with gasoline and diesel-powered trucks and buses, to

determine the equity of the additional tax per gallon on diesel fuel. The report resulted in a reduction of the tax on diesel fuel from 20 cents to 18½ cents per Imperial gallon. One of several projects being carried out by the Branch is a highway finance study for Ontario. This survey will provide the counterpart to the engineering needs studies already completed by the Department of Highways.

The Department is much concerned with one of the more serious problems of our time—the needless loss of life, health and property from motor vehicle accidents. In a determined effort to cope with this problem the *Highway Safety Branch* was established in the autumn of 1957 under the direction of the Commissioner of Highway Safety. The primary objective of the Branch is to achieve a maximum degree of safety on our streets and highways. To accomplish this, the Branch supports and integrates the work of all Government departments in the field of highway safety and co-ordinates the activities of all groups throughout the Province. It also administers advertising and publicity for developing strong public support, so essential to any successful action to improve road behaviour and to prevent accidents. An effort is made to reach the public directly through vigorous publicity campaigns via radio, television, newspapers, billboards and such means as road safety “workshops” and conferences. The first Province-wide traffic safety conference ever held in Ontario, “Road Safety Workshops, 1958”, was organized by the Branch and took place in September, 1958. With the advice of the Scientific Research Advisory Committee, the Highway Safety Branch investigates the causes of accidents and recommends preventive measures.

The rapid growth of the Province's industry and commerce in recent years has led to a greatly increased demand for road freight transport. To ensure that commercial vehicles keep within the weight and other limits specified by their licences, greatly increased attention has been given to weighing and inspection by the *Enforcement Branch*. Portable scales are now being used in areas without permanent scales. During 1960, there was a further substantial increase in the degree of enforcement. Some 1,015,596 vehicles were examined compared with 880,162 in 1959.

To develop a branch for the purpose of encouraging the standardization of traffic control and traffic operations throughout the Province, a traffic engineer was appointed on September 28, 1958. Assistance and advice have been given to municipalities by the *Traffic Engineering Branch* in regard to various aspects of traffic control and operations. Under The Highway Traffic Act and The Municipal Act, municipalities are required to submit traffic by-laws to the Department for approval.

Traffic surveys on four-lane highways in Southern Ontario have been completed, and the speed limits have been revised upwards in accordance with the improved safety standards of such roads. Similar surveys are being

conducted on the whole of the King's Highway system and will be completed shortly.

The *Ontario Highway Transport Board* passes upon all applications for commercial vehicle operating licences. When the Board determines that it is in the interest of public necessity and convenience to accept an application, a certificate is issued and forwarded to the Minister of Transport who may issue an operating licence to the applicant. Where such operations are extra-provincial, licences may be issued under the Motor Vehicle Transport Act (Canada). Separate provincial boards (Ontario and Manitoba) have held joint sessions, thereby facilitating the processing of applications for inter-provincial franchises. Other provinces are expected to co-operate in the future. On the operational side, an innovation was recently introduced to speed up freight shipments. P.C.V. "A" operators are now permitted to interchange trailers within the Province. It is no longer necessary to transfer the cargo but merely to interchange the loaded trailer with another company's tractor.

TRAVEL AND PUBLICITY

Tourism not only provides income for our people, but has also spurred the development of many remote sections of Ontario. It helps our international balance of payments position and makes friends for Ontario and Canada in the United States, and many other countries of the world.

Tourists from the United States spent an estimated \$178 million in Ontario during 1959. This was more than 50 per cent of the total expenditure made by United States travellers in Canada. Some four million passenger cars enter Ontario each year from the United States for stays of two days or less, while another two million either remain for more than two days or go beyond the jurisdiction of their point of entry. Tourists entering Ontario in 1959 by rail, bus, boat and plane numbered more than three-quarters of a million.

The number of tourist establishments in Ontario has increased substantially in recent years. In 1959, accommodation for 280,000 persons was available in hotels, tourist resorts, outfitters' camps and motel units. The increase in this latter type of accommodation indicates that there is a strong trend to the nomadic, motor-trip variety of holiday, with reduced duration of stay at any one place. Tourists continue to demand more and better facilities. The Department of Travel and Publicity, established in 1946, provides information on Ontario's tourist accommodation and endeavours to ensure that visitors meet with a pleasant and friendly reception.

In carrying out its responsibility, the Department encourages and promotes improvement in the standard of accommodation and services offered to tourists. Through its *Development Branch*, a regional system of licensing and inspection is conducted for all establishments. More than 30 full-time and seasonal inspectors visit all

licensed establishments, including more than 1,700 outfitters' camps, giving advice and assistance in matters of sanitation, building materials, decorating and accounting. The inspectors' training makes them thoroughly knowledgeable in such matters as hotel, resort and restaurant administration, fire and electrical safety practices, and forest fire prevention. The Branch offers training courses to tourist operators which are designed to help make their resorts more attractive and their management more efficient.

Publications are prepared for the direct benefit of those engaged in the tourist industry. Surveys—an integral and essential function of the Branch—are conducted in order to give some indication of the scope and potential of the industry. This information is used to assess the significance of travel trends and habits so that promotional efforts may produce optimum results.

A program to advertise Ontario as an ideal vacationland is conducted by the *Division of Publicity*, which also prepares a wide variety of publications and maintains liaison with news services. Extensive promotional work is carried out in the United States through practically every conceivable communication medium. Millions of pieces of literature publicizing the resources, attractions and tourist advantages of Ontario are issued annually. The Division co-ordinates the general advertising of all Government Departments, supervises advertising accounts and writes and prepares advertising of a general character.

The *Information Branch* circulates the Department's literature throughout the United States and Canada. All direct mail enquiries—averaging 283,000 per year—are handled by this Branch. It also co-operates with tourist operators in the distribution of their published material.

Sixteen Ontario Tourist Reception Centres have been established at the major points of entry. Trained young women are on hand to supply information and even help in planning an entire vacation. They meet the tourist cheerfully and serve as saleswomen of goodwill for the Province. These Ontario centres have been used as models by such jurisdictions as Florida, Alberta, Nova Scotia and Manitoba, in developing their own reception centres.

The *Photography Branch* records on film tourist activities, attractions, and special events taking place throughout the Province and maintains a library of photographic stills for distribution to individuals, agencies and organizations who can assist in the promotion of travel to Ontario. It also maintains a motion picture library, distributes films throughout Canada, and co-operates with the National Film Board on distribution in the United States. Special promotion projects, such as tours of writers and photographers, are arranged and conducted by this Branch.

The *Historical Branch* is engaged in an extensive program of commemorating and publicizing persons, places, events and structures of historical value in an effort to make travel in the Province more interesting and informa-

tive by acquainting visitors with the significance and lore of particular areas. In this task, it is assisted by the Archaeological and Historic Sites Advisory Board of Ontario, a group of private citizens which includes several prominent professional historians.

The Branch administers Government grants and furnishes technical assistance to historical museums throughout Ontario. It also protects archaeological sites, compiles historical publications and answers inquiries regarding the Province's historical attractions.

Recently transferred from the Treasury to the Travel and Publicity Department, the *Theatres Branch* censors motion pictures which will be displayed in Ontario and inspects theatres under the authority of The Theatres Act and The Travelling Shows Act.

The *Archives of Ontario* report to the Legislature through the Department of Travel and Publicity. It acquires and preserves records of lasting value to the Legislative Assembly, or any department, branch or commission of the Provincial Government. Historical manuscripts, maps and pictures concerning the history of Ontario are also collected and kept safely, while a library of books and pamphlets relating to the history of the Province is also maintained.

TREASURY

The rapid growth of Ontario's economy and the ever-widening scale of Government activity has necessitated the expenditure of substantial sums by the Provincial Government. The Treasury Department, which is responsible for controlling and auditing receipts and expenditures and is engaged in continuous financial control and financial planning, plays an important role in Government operations today.

In carrying out its functions, the Department examines and reports the financial condition of the Province to the Government and makes recommendations on matters involving fiscal policy. It assesses and collects monies under most of the Province's revenue-producing statutes and maintains a central accounting system which reflects the depositing of receipts by all Government departments as well as the disbursement of Provincial funds as approved by the Provincial Auditor. The Department manages all cash reserves, arranges for and negotiates the acquisition of borrowed funds, and provides a variety of financial services to other Government departments and to the public.

The major piece of legislation establishing and defining the operations of the Department is The Financial Administration Act of 1954 and amendments. The Act clothes the Treasurer with broad powers over the collection, disbursement and safeguarding of public monies, and establishes procedures for the borrowing of funds.

The Executive Council or Cabinet has the final voice in

establishing financial policy, but instrumental in shaping this policy is the *Treasury Board*—a Cabinet committee composed of not fewer than four nor more than seven Ministers—assigned to relieve the Cabinet, as a whole, of the voluminous detail of financial management. At present, the Board consists of a chairman and five other members. It co-ordinates financial planning and exercises overall control of Provincial expenditures. In short, as The Financial Administration Act states, the Treasury Board acts "as a committee of the Executive Council in all matters relating to finance, revenues, estimates, expenditures and financial commitments and on any other matter concerning general administrative policy in the public service that is referred to the Board by the Executive Council or on which the Board considers it desirable to report to the Executive Council".

Assisting the Treasury Board is the *Budget Committee*, made up of Treasury Department officers and the Deputy Minister of Economics, which is responsible for compiling and advising upon the annual and supplementary estimates of revenue, receipts, expenditures and payments, present and prospective. It is also the Committee's function to make suggestions with a view to promoting efficiency and economy in any department. In its advisory capacity, the Committee prepares many reports and memoranda for the use of the Treasury Board in making policy decisions.

In addition to providing for and clearly defining the responsibilities of the Treasury Board, the Budget Committee, and the various branches of the Treasury, The Financial Administration Act calls for the appointment of and establishes the duties for a Deputy Provincial Treasurer and three Comptrollers. The Deputy Provincial Treasurer is responsible for the general administration of the Department and assists the Treasurer in ensuring that proper and efficient control is exercised over the Province's revenues and expenditures. The Comptroller of Finances advises on trends in public finance, on matters concerned with the raising of money and the management of Ontario's public debt and sinking funds. The Comptroller of Accounts examines the procedures of administration and control used in any of the Government Departments with respect to the accounting of the disbursement of public money and makes recommendations on this sector of the Province's finances to the Treasurer. The Comptroller of Revenue investigates sources and rates of taxes and all other forms of revenue, supervises the method of collecting and accounting of Provincial receipts in all departments, and makes recommendations on these matters to the Provincial Treasurer.

The work involved in carrying out the functions assigned to the Comptroller of Revenue, is shared among five branches and a general office section, namely, the *Chief Auditor of Revenue*, the *Gasoline Tax Branch*, the *Hospitals Tax Branch*, the *Security Transfer Tax Branch* and

the *Succession Duty Tax Branch*. Some of the major taxing statutes administered by these branches are The Income Tax Rental Agreement Act, The Corporations Tax Act, The Gasoline Tax Act and The Succession Duty Act.¹

The Treasury Department issues cheques drawn on the Consolidated Revenue Fund in payment of accounts as authorized by other departments and approved by the Provincial Auditor. All Provincial revenues are deposited with the Head Cashier of Treasury by the cashiers or accountants of the various departments. Under this Consolidated Revenue System each department has its own accounting branch, subject to the review of the Comptroller of Accounts, but all revenues of the various departments, which vary widely in amount, are paid into the Consolidated Revenue Fund. This procedure enables all departments to administer a balanced program through appropriations granted by the Legislature, regardless of their revenue-producing status.

A variety of miscellaneous services are also provided by the Treasury Department through several special branches. For example, the *Securities Branch* processes the issue and delivery of all Provincial securities and arranges for their redemption and cancellation. In addition, the branch serves as custodian for any type of security which may come under the control of the Provincial Government. Under authority of The Agricultural Development Finance Act, the Treasury Department through the *Savings Office* operates over twenty savings offices, chiefly throughout South-

¹The Province's three per cent sales tax which will become effective September 1, 1961, will be administered by a *Retail Sales Tax Branch* under the supervision of the Comptroller of Revenue.

ern Ontario. The public is free to deposit money and make withdrawals by cheque at any of these offices. The Province of Ontario Savings Offices also serve as agencies for the Ontario Department of Labour in the sale and redemption of vacation stamps issued under The Hours of Work With Pay Act.

Several agencies, as well, are attached to the Treasury Department. Of particular note is the *Ontario Municipal Improvement Corporation*, established under The Ontario Municipal Improvement Corporation Act, for the purpose of purchasing municipal debentures for sewer and water-mains, and school purposes.

An essential segment of government is its civil service personnel. By authority of Order-in-Council 3470 dated October 1, 1959, the responsibility for the administration of The Ontario Public Service Act was transferred from the Provincial Secretary to the Treasurer. Under the provisions of the Act, the *Civil Service Commission*—composed of two Commissioners and the Chairman—is generally responsible for the personnel policies of the Ontario Government. The Commission is responsible for the terms of appointment of Civil Servants, the setting of standards to ensure that only the qualified are selected and, in general, all matters relating to salaries, promotion, classification, hours of work, vacations and sick leave. Further security is extended to Civil Servants through the *Public Service Superannuation Board*. The Board, chaired by the Comptroller of Finances, is responsible for carrying out the superannuation provisions of The Public Service Act, guaranteeing to qualified permanent staff members of the Ontario Civil Service the benefit of superannuation allowances.

Trends in Ontario's Finances in the Post World War II Period

Ontario's public services have expanded at an unprecedented rate since the end of World War II, prompted by the rapid pace of our industrial and population growth. In truth, this expansion has been a cause as well as an effect, for without adequate services at the Provincial and municipal levels, much of our post World War II development could not have taken place.

Under the British North America Act, the responsibility for the provision of a wide range of services essential to community and industrial growth falls within the provincial orbit. During World War II, Ontario was able to reduce its public debt by holding in abeyance all major public works. In this manner, the Province permitted a maximum of human and material resources to be devoted to the war effort. With the return of peace and the easing of wartime restrictions, steps were taken to extend and improve highways and expand hospital and other public buildings. Initially, only the most pressing capital projects

were undertaken. However, as men and materials became more readily available, the Government gradually increased the size of its program which was designed not only to whittle down the huge backlog of projects carried over from the war years and the depression of the 1930's, but to provide those services necessary to a rapidly expanding economy. Expenditures were further accelerated by rising prices, population growth—particularly school population—assistance to municipalities and the growing demand for highways and roads associated with the increase in motor vehicle traffic. The Province's net ordinary expenditure climbed from \$126.8 million in the fiscal year 1945-46 to an estimated \$738.3 million in the fiscal year 1960-61. Over the same period, net capital disbursements rose from \$5.5 million to \$211.6 million. Overall expenditures rose from \$132.3 million in 1945-46 to \$872.9 million¹ in

¹\$77 million of capital disbursements were financed out of ordinary revenue.

1960-61. The 1961-62 Budget forecasts overall expenditures of \$1,015.3 million.

The population of Ontario, as a result of high birth rates and large scale immigration, has increased by more than 2,000,000 persons, or 50 per cent, since the end of World War II, rising from a level of 4,000,000 in June, 1945, to 6,210,000 in March, 1961. Striking as our population increase has been over the past 14 years, our school population has grown at a much faster rate, doubling in the post-war period from 666,000 to 1,400,000. To meet the requirements of this vast upsurge in student enrolment, it has been necessary to recruit an additional 25,000 teachers—a number greater than our total teaching force in 1945-46—while more than 857,400 new pupil places have had to be provided. University enrolment has also more than doubled. In the academic year 1960-61, 28,400 undergraduate students attended Ontario's universities and colleges, compared with 12,000 a decade-and-a-half ago. As a result of these developments, the Provincial Government's expenditures for education have increased nearly eight-fold since the end of World War II.

In another major area of provincial responsibility—highways—Ontario has been obliged to undertake a huge program of maintenance and construction in order to keep pace with the rapid growth in the number of motor vehicles using our highways and roads. There are now over 2,000,000 vehicles registered in the Province, compared with 663,000 at the end of World War II.

Our health services have also been greatly improved and expanded. Among the notable accomplishments in this field is the establishment of a comprehensive health insurance plan to provide, irrespective of age or disability, low-cost protection against the financial burden of hospitalization.

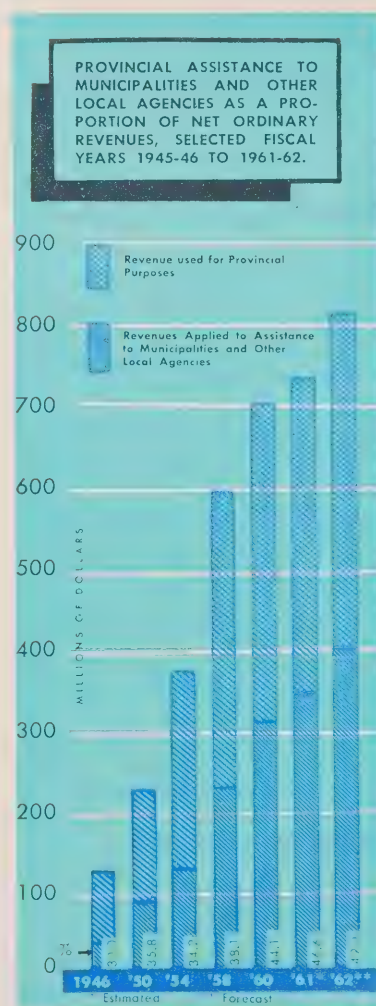
While these three services—education, highways and health—are the most costly areas of the Province's responsibility, other provincial services have been greatly strengthened and expanded. For example, the Ontario Water Resources Commission has been set up to ensure, on a Province-wide basis, adequate supplies of pure water and improved sewage facilities. A comprehensive parks program has been undertaken, and many other projects for human betterment and economic growth have been initiated.

Among these has been a greatly enhanced and expanded program of development and conservation of natural resources. In the area of agriculture, the teaching and research facilities of the Province's agricultural colleges and schools have been expanded. Farm marketing services have been broadened and improved. Electric power and telephone services have been extended to increasing numbers of the rural population, and many community

halls and centres have been established. Much progress has been made in the implementation of forestry policies designed both to protect and to perpetuate our timber resources. The Province's program of sustained yield has been formulated to preserve the forest resources for future generations and to ensure the continued prosperity of the important forest-based industries. Progress in the mining industry has been encouraged by the extension of geological and geophysical services. Also of great benefit to this industry has been the Government's access roads program—introduced in 1951—to open up promising mineral areas. In all, the total ordinary and capital expenditures of the three Departments—Agriculture, Lands and Forests, and Mines—amounted to some \$43.6 million in 1960-61, compared with less than \$12.0 million in 1945-46. In 1961-62, \$45.2 million was appropriated for these Departments.

While the factors of growth and expansion impose heavy financial and administrative burdens on the Province, they fall with equal weight on local governments. The municipalities, because of their long and intimate experience with problems at the local levels, are best qualified to administer a wide range of services necessary to the public well-being. In recognition of this fact, the Province has provided large and increasing amounts of financial aid, thus ensuring an efficient and flourishing framework of municipal services and a cushioning effect on the tax burden on real property.

In 1961-62, the Ontario Govern-



ment's aid to municipalities, school boards and other local authorities will reach an all-time high of \$398.9 million—more than ten times the \$38.5 million paid in 1945-46. There are two major forms of assistance: one consists of grants in aid of local education, municipal roads, and health and welfare services, while the other consists of the payment of unconditional per capita grants, introduced in 1954. The money made available to the municipalities by the Ontario Government is equal to over half the total municipal tax levy in this Province and represents 49 per cent of Provincial revenues. Put in another way, the revenue to be received by Ontario from four major tax fields in 1961-62—namely, corporations tax, personal income tax, succession duty and retail sales tax—will be transferred to the municipalities and their emanations. This points up the existence of the close working partnership between the Province and the municipalities.

ASSISTANCE TO MUNICIPALITIES AND OTHER LOCAL AGENCIES
BY THE ONTARIO GOVERNMENT
SELECTED FISCAL YEARS 1945-46 TO 1961-62

	1945-46	1949-50	1953-54	1957-58	1960-61 ¹	1961-62 ²
	(Thousands of Dollars)					
Education.....	24,747	41,042	64,017	110,441	180,056	212,316
Hospitals.....	1,183	9,394	19,650	20,964	32,904	32,592 ³
Health Units, School Medical Inspection and School Dental Services.....	171	489	672	896	1,165	1,265
Roads.....	7,341	20,752	28,084	52,490	73,758	76,835
Unconditional Grants..	—	—	—	20,670	25,620	26,700
Child Welfare.....	77	824	1,487	3,321	4,643	5,261
Homes for the Aged....	—	463	1,829	5,346	4,791	4,981
General Welfare Assistance.....	1,310	2,396	2,811	4,556	8,688 ⁴	7,974
Conservation, Drainage Aid and Flood Control	49	1,012	1,256	1,794	2,108	5,442
Mining Municipalities..	105	300	1,493	2,276	4,733	5,750
Payments in Lieu of Certain Municipal Taxes.....	—	—	375	788	1,224	1,500
Miscellaneous.....	3,482	5,245	5,975	2,222	4,354	18,289
Total Assistance to Municipalities.....	38,465	81,917	127,649	225,764	344,044	398,905

¹Estimated.

²Forecast.

³In the past few years the Legislature has voted monies for special rehabilitation grants to public hospitals as supplementary estimates. If this practice is continued, the amount of assistance to hospitals in 1961-62 will be higher than that shown in the table.

⁴Includes \$2.2 million in additional funds to be appropriated for this purpose.

An examination of the application of funds in particular fields of activity illustrates some of the trends in the Government's expenditures since the end of World War II. Under the heading of "net ordinary expenditures", the largest outlays are made on behalf of education, highways and health services. The rising costs of education accounted for 32 per cent of the \$611.5 million increase in net ordinary expenditures between 1945-46 and 1960-61. The Ontario Government's expenditures on this service have increased almost eight-fold—from \$30.8 million in the fiscal year 1945-46 to \$227.0 million in 1960-61. Over the same period, disbursements for the maintenance of highways and roads, and for health services increased by \$54.3 million and \$77.8 million, respectively. Taken together, these three services have accounted for more than half of the increase in the Province's net ordinary expenditures in the last 15 years.

As has been mentioned, capital spending declined to

comparatively low levels during the depression and subsequent war years. When the shortages in labour and materials of the reconstruction period were eventually overcome, in the early 1950's, the Province's capital investment program was rapidly expanded. Capital disbursements in 1960-61 were about forty times greater than those in 1945-46, rising from \$5.5 million to \$211.6 million. Two-thirds of this increase of \$206.1 million occurred during the six fiscal years 1955-56 to 1960-61. Estimated 1961-62 capital expenditures are \$242.3 million.

The major portion of capital outlays has consistently been applied to the improvement of the Province's highway system. More than 80 per cent of total capital disbursements were for this purpose in 1960-61, compared with 61 per cent in 1945-46. When measured in absolute terms, the cost of highway construction has increased more than fifty-fold from \$3.4 million in 1945-46 to \$171 million in 1960-61. The Province expects to spend \$190.4 million for highways and roads in 1961-62.

Similarly, an increasing capital expenditure trend has been in evidence for Ontario Hospitals, agricultural colleges, administration buildings, storage dams and conservation works. Outlays on projects of this nature have soared from \$0.5 million in 1945-46 to \$36.9 million in 1960-61 and are estimated at \$44 million in 1961-62.

Although revenues have increased, they have not matched the rise in expenditures. In 1960-61, net ordinary revenues amounted to \$738.6 million—more than five times the \$128.4 million collected at the close of World War II. In 1961-62 they are expected to increase further, to \$813.9 million.

Ontario's growing economic prosperity—reflected in higher levels of corporate profits and personal income—has contributed to much of our revenue growth. In addition, some improvements have been made in tax-sharing arrangements with the Federal Government. Despite these adjustments, the Province has been obliged to effect increases in certain provincial fields of taxation in order to finance its greatly expanded municipal assistance and direct service programs. Some of these adjustments were little more than was required to compensate for the rise in prices and incomes. This was true of motor vehicle licences and fees which, prior to 1956, had not been changed for many years and were no longer realistic in the light of the post-war price and income structure. A major readjustment of the charges for motor vehicle licences and fees was therefore effected in 1956. The gasoline tax rose by 2 cents to 13 cents per gallon in the Budget of 1957, and the tax on diesel fuel from 11 cents to 20 cents per gallon, which later, in 1958, was reduced to 18½ cents. Licence fees for brewers were raised in 1957 and 1959, and those for authority holders (hotels, taverns, etc.) in 1959.

When Ontario, following the expiration of the tax rental agreement in effect from 1952 to 1957, re-entered the

corporation income tax field, effective January 1, 1957, it imposed a rate of 11 per cent on corporate income. Pre-1952 place of business and capital taxes were reimposed under The Corporations Tax Act, 1957, but, in contrast to the situation in the Province of Quebec, these taxes are treated as an offset against the amount of the corporation income tax paid to Ontario.

Moderate increases were also made in the taxation of companies engaged in mining and logging operations. In 1957, the tax rate under The Mining Tax Act on the first \$1,000,000 of profits was left unchanged, but that on profits of from \$1 million to \$5 million was raised from 8 per cent to 11 per cent, and on profits of more than \$5 million the tax was raised from 9 per cent to 12 per cent. The rate of tax on logging profits has remained at 9 per cent since the inception of the tax in 1949-50, though the tax base was somewhat broadened in 1957. Prior to 1961-62, Ontario had added no new sources of taxation since before World War II. In his Budget Statement of March 9, 1961, the Treasurer of Ontario announced that effective September 1, 1961, a 3 per cent retail sales tax was to be imposed in Ontario to help finance rising costs of government, particularly in the fields of health and education. Tax exemptions under the new measures are to be the most generous of any in effect in Canada.

Corporation and personal income taxes, as well as revenues from gasoline and diesel fuel taxes and motor vehicle licences and fees have assumed increasing importance. For instance, in 1960-61 the Province received an estimated \$300.8 million, or more than 40 per cent of its net ordinary revenues, from its corporations tax and the income tax rental arrangements with the Federal Government, compared with only \$29 million, or 22.5 per cent of net ordinary revenue, in 1945-46. Gasoline and diesel fuel taxes amounted to \$163.8 million, or 22.1 per cent of revenues, compared with \$27.3 million, or 21.2 per cent of the Province's revenues in 1945-46. Similarly, revenues from motor vehicle licences and fees have risen over the same period from \$9.8 million to \$68.4 million, contributing 9.3 per cent of net ordinary revenues in 1960-61 compared with 7.7 per cent in 1945-46.

The post-war increase in motor vehicle registrations in Ontario, from 663,000 to over 2,000,000 together with adjustments in gasoline and diesel fuel tax rates and motor vehicle licences and fees has resulted in a rise in revenues from these sources of \$195.1 million between 1945-46 and 1960-61. Although such revenues have increased substantially in the post-war period, they are still not large enough to meet the cost of construction and maintenance of our highways and roads. In 1960-61 collections from gasoline tax, diesel fuel tax and motor vehicle licences and fees are estimated at \$232.2 million. Ordinary and capital expenditures at the Provincial level for highways and roads, however, amounted to an estimated \$244.9 million. Inclusive of the amount to be spent by the municipalities,

estimated outlays for new construction and maintenance of our highway and roads systems amounted to \$317.5 million in 1960-61—\$85.3 million more than combined collections from gasoline tax, diesel fuel tax and motor vehicle licences and fees.

Receipts from Liquor Control Board profits and fees have tripled in the post-war period from \$24.7 million in 1945-46, to \$80.5 million in 1960-61, although they have declined in relative importance, representing 19.2 per cent of net ordinary revenues in 1945-46, and 10.9 per cent in 1960-61. A similar trend is apparent for collections of Succession Duties. Revenues from this source represented 4.8 per cent of revenues in 1960-61, compared with 9.8 per cent in 1945-46, although in dollar terms, revenues have grown from \$12.5 million to \$36.0 million.

The Province also obtains revenue from the imposition of a number of other taxes and dues, among which levies on mining profits, etc., are expected to yield \$18.2 million in 1960-61; land transfer tax—\$3.5 million; race tracks tax—\$5.7 million; water rentals—\$6.0 million; hospitals tax (amusement tax)—\$4.0 million; timber dues and bonus, etc.—\$12.6 million; and logging tax—\$1.6 million. Comparison is made in the following table of revenue collections by source for the fiscal years 1945-46 and 1960-61.

NET ORDINARY REVENUES OF THE PROVINCE OF ONTARIO
FISCAL YEARS 1945-46 AND 1960-61

	(\$ Million)			
	1945-46	Percentage of Total	1960-61 ¹	Percentage of Total
Personal Income Tax.....	7.0 ²	5.4	113.8 ³	15.4
Corporations Tax.....	22.0 ²	17.1	187.0	25.3
Succession Duty.....	12.5	9.8	36.0	4.8
Dominion Government Subsidy.....	3.2	2.5	3.7	0.6
Gasoline and Diesel Fuel Taxes.....	27.3 ²	21.2	163.8	22.1
Motor Vehicle Licences and Fees.....	9.8	7.7	68.4	9.3
Liquor Control Board.....	24.7	19.2	80.5	10.9
Race Tracks Tax.....	2.6	2.0	5.7	0.8
Security Transfer Tax.....	1.3	1.0	2.0	0.2
Land Transfer Tax.....	0.8	0.7	3.5	0.5
Hospitals Tax.....	—	—	4.0	0.5
Water Rentals.....	0.7	0.5	6.0	0.9
Mining Taxes (Acreage, profits and gas).....	1.9	1.5	18.2	2.4
Logging Tax.....	—	—	1.6	0.2
Timber Dues and Bonus, etc.....	5.6	4.3	12.6	1.7
Other Revenues.....	9.0	7.1	31.8	4.4
	<u>128.4</u>	<u>100.0</u>	<u>738.6</u>	<u>100.0</u>

¹Estimated.

²Includes Dominion Government Subventions.

³Received under Income Tax Rental Agreement.

Net ordinary revenues for 1961-62 (including \$60 million from the retail sales tax) are forecast at \$813.9 million. This represents an increase of \$75.3 million over 1960-61 revenues of \$738.6 million.

Net capital receipts play only a minor role in the finances of the Province. After reaching a level of \$5.5 million in 1950-51, they declined to \$0.7 million in 1954-55. They rose again to \$2.1 million in 1960-61, and are forecast at \$1.5 million for 1961-62.

It has been the Province's policy to finance as large a proportion as possible of its capital disbursements out of current revenue. Indeed, over the past decade-and-a-half

almost two-thirds of Ontario's investment in physical assets has been financed in this way. However, the growth in the Province's capital program has been so rapid that some increase in the net capital debt was inevitable.

NET CAPITAL DEBT OF THE PROVINCE OF ONTARIO
AS AT MARCH 31, SELECTED YEARS 1939 TO 1961

Fiscal Year Ended March 31	Current Dollars		Constant (1935-39) Dollars	
	(\$000's)	Per Capita \$	(\$000's)	Per Capita \$
1939	478,268	129.19	467,973	126.41
1942	507,128	131.11	454,009	117.38
1946 ¹	480,189	117.75	344,963	84.59
1948	468,267	109.95	325,185	76.35
1951	522,610	114.18	289,214	63.19
1954	629,996	123.87	289,254	56.87
1956	705,306	131.05	303,357	56.37
1957	758,278	135.75	308,871	55.29
1958	818,606	141.80	316,308	54.79
1959	900,532	152.22	336,899	56.95
1960	993,555	163.47	359,853	59.21
1961 (Estimated)	1,111,745	179.02	390,428	62.87

¹A slight change in the accounting definition of Net Capital Debt is reflected in this and subsequent years.

Despite the fact that the Province's net capital debt increased from \$480.2 million at March 31, 1946, to an estimated \$1.1 billion at the same date in 1961, the "real" burden of the debt has actually declined. In current dollars, the rise per capita has been from \$117.75 to \$179.02. In view of the inflation that has taken place since 1946, a more realistic assessment of the burden of the debt can be gauged in terms of constant (1935-39) dollars. Though on this basis the Province's net capital debt has increased from \$345 million to \$390 million, on a per capita basis it has declined from \$84.59 to \$62.87.

Looking at the debt position from another angle, in 1945-46 it would have taken the revenue of 3¼ years to retire the then outstanding net capital debt; in 1960-61 it would have taken 1½ years' revenues. Or again, in 1945-46 the net debt represented more than 13 per cent of the personal income of Ontario's people; in 1960-61 it represented only 10.2 per cent.

Review of Ontario's Fiscal Relations with the Federal Government

Major problems of Canadian federalism arise from the division of functions and taxing powers between the Federal and provincial governments. Under the distribution of legislative powers at Confederation the provinces were given exclusive control over such important matters as: education (subject to certain safeguards for the rights of religious minorities); municipal institutions; public lands and natural resources; property and civil rights; the administration of justice; local works and undertakings other than interprovincial or international lines of ships, railways, canals and telegraphs; the establishment and maintenance of reformatory prisons, asylums, charitable institutions and hospitals other than marine hospitals; and generally all matters of a local or private nature. The provinces were also granted concurrent powers in respect of agriculture and immigration. The central government was given the responsibility for such matters as: national defence; the regulation of trade and commerce; navigation and shipping; fisheries; the establishment and maintenance of penitentiaries and marine hospitals; criminal law; the postal system; naturalization and aliens; currency and coinage; commercial paper; banking; and in general all matters not coming within the classes of subjects assigned exclusively to the provinces. With respect to taxing powers, the Federal Government was granted the right to raise money by any mode or system of taxation, while the provinces were limited to direct taxation for the raising of revenue for provincial purposes. Today, with the expansion and development of the economy, provincial responsibilities have required access by the provinces to an increasing share of the fields of direct taxation.

Royal Commission on Dominion-Provincial Relations

Many studies and conferences on Federal-Provincial fiscal relations have taken place since Confederation, and among the most important of these was the work of the Royal Commission on Dominion-Provincial Relations appointed in August, 1937.

This Royal Commission, which reported in 1940 shortly after the outbreak of World War II, examined the distribution of functions and revenues between the Federal and provincial governments in the light of economic and social developments since 1867 and particularly with reference to the economic depression of the 1930's. Briefly stated it recommended: (1) that exclusive Federal jurisdiction be established in the major direct tax fields of personal income, corporate income and successions; (2) that the Federal Government accept complete responsibility for relief to unemployed employables; (3) that the Federal Government assume net provincial debts; and (4) that the Federal Government make payments of national adjustment grants designed to place each provincial government in a position to provide average standards of public services without imposing higher than average rates of taxation.

The recommendations of the Royal Commission were considered at the Dominion-Provincial Conference of January, 1941, but such fundamental changes proved unacceptable to several of the provinces. The Federal Government was urged to concentrate every effort on the successful prosecution of the war and the provinces pledged their support to this end.

The report of the Royal Commission represented the most extensive survey and comprehensive analysis of Federal-Provincial relations ever conducted in Canada. While history records that its fiscal recommendations, based largely on conditions of widespread unemployment and economic depression, were unsuited to the conditions of full employment and buoyant incomes and revenues that developed, they inspired a series of fiscal arrangements that continue to influence Federal-Provincial relations to this day.

Wartime Tax Agreements, 1942

Three months after the close of the Conference, the Federal Minister of Finance, in his Budget Speech of April, 1941, at the time of announcing substantial increases in Federal personal and corporation income taxes, proposed that each province enter into an agreement to suspend its rights to levy corporation and personal income taxes for the duration of the war and one year thereafter. In order to permit the Federal authorities to wage total war, all the provinces accepted the Federal proposal and the wartime tax agreements quickly came into effect. Under these agreements, the provinces withdrew from the personal income and corporation tax fields until after the war, in return for a fixed annual payment based at their option on either the yield of these taxes in the fiscal year ended nearest to December 31, 1940, or the net debt service less provincial collections of succession duties in the same fiscal year. In addition, the Federal Government agreed to reimburse the provinces should their revenue from gasoline taxes fall below that of 1940, and later made agreements with all provinces, except Ontario and Nova Scotia, to guarantee them against loss from a decline in revenue from liquor sales on the basis of revenue received in the year ended June 30, 1942.

The gross annual payment to the Province of Ontario for the vacation of its personal income and corporation tax fields was based on the yield of its taxes in the fiscal year ended March 31, 1941, and amounted to nearly \$29 million. The actual amount received in each year varied in accordance with certain adjustments, as prescribed by the terms of the agreement, with respect to net collections made by the Province on account of the taxes surrendered in favour of the Federal Government. The Province's net receipts from gasoline taxes were guaranteed at \$26.6 million per annum, and over the period of the agreement the Province received, in compensation for loss of gasoline tax revenue, payments under the guarantee totalling nearly \$23.2 million.

As described by the Federal Minister of Finance, the wartime tax agreements were intended to be temporary arrangements. Their main purpose was to place in the hands of the Federal authorities the unfettered use of the corporation and personal income tax fields, while at the

same time stabilizing provincial receipts in respect of these tax fields at the 1940 levels determined by the more favourable of the two alternate methods of compensation. Provincial services, then of secondary importance, were held at minimum levels and, in virtually all cases, provincial capital investment programs were deferred so that materials and labour would not be diverted from the war effort. Before the wartime agreements terminated, the provinces foresaw a marked and necessary expansion in the post-war period of their ordinary and capital programs. At the same time, the Federal Government saw its role in the return to peacetime conditions as one of greatly increased responsibilities which would require control over revenue sources almost to the same extent as that necessitated by wartime conditions. The tax agreements could not, however, be continued in their wartime form as they failed to provide an increasing source of provincial revenues to enable the provinces to carry out their growing responsibilities.

Tax Rental Agreements, 1947-52

At the Dominion-Provincial Conference of 1945-46, called to consider ways and means of meeting the problems of the post-war period, the Federal Government submitted a comprehensive set of proposals which were much wider in scope than the recommendations of the Royal Commission on Dominion-Provincial Relations. The proposals were not simply fiscal in nature, but covered, in addition, the broad fields of public investment and social security. While the proposals in the latter areas were important and were originally an inseparable part of the overall plans, the more controversial issue of basic financial arrangements was of the greatest concern to the provincial premiers. The period of discussion and negotiation extended over many months and financial agreements were finally reached with seven of the nine provinces, but not with the two largest, Ontario and Quebec. With the acceptance of Newfoundland on its entry into Confederation, eight of the ten provinces signed tax rental agreements with the Federal Government.

Under the 1947 tax rental arrangements, a province was required to refrain from imposing personal income taxes, corporation income taxes and special corporation taxes during the five-year period 1947 to 1951 inclusive, and, at its option, succession duties on estates arising from deaths in the period April 1, 1947 to March 31, 1952. If a province withdrew from the succession duty field—and all provinces which signed agreements with the Federal Government did so—it received the full amount of compensation payable under the agreement. On the other hand, had a province elected to levy its own succession duties, the terms provided for a reduction in its payment of an amount equal to the credits allowed under Federal succession duty law for provincial duties on the same suc-

cessions. An agreeing province was also required to impose a five per cent corporation income tax, which was collected by the Federal Government on behalf of the province, and the revenue therefrom was deducted from the rental payment. The purpose of this tax was to avoid too wide a differential in the tax treatment of corporations between signing and non-signing provinces. All provinces were left free to levy mining and logging taxes which were treated as an expense and deducted from corporate income for Federal tax purposes.

In return for a province's suspension of its taxing rights in the major direct tax fields, the Federal Government paid in respect of each of the five fiscal years of the agreement, in addition to the statutory subsidies which were payable in the normal way and at the usual times, the amount by which a guaranteed minimum amount adjusted upwards for changes in gross national product per capita and provincial population exceeded the statutory subsidies. The determination of a province's guaranteed minimum payment was computed, at its option, on one of three bases: (1) the amount of \$12.75 per capita on 1942 provincial population plus one-half of the revenue derived by the province from personal income taxes and corporation taxes in the fiscal year ended nearest to December 31, 1940, plus the statutory subsidies payable in 1947; or (2) the amount of \$15 per capita on 1942 provincial population plus the statutory subsidies payable in 1947; or (3) a guaranteed minimum payment of \$2.1 million (this option was designed especially for the benefit of Prince Edward Island). The adjusted payment in each fiscal year was the guaranteed minimum amount adjusted upwards in accordance with the average increase in gross national product at market prices per capita and in provincial population in the three years preceding the year of payment compared with these factors in 1942. The three-year averaging technique was adopted to eliminate sharp changes in the payments. The Federal Government also undertook to pay each province, whether it entered into a tax agreement or not, one-half of Federal corporation income tax collections from companies whose main business was the distribution, or generation for distribution, to the public of electrical energy, gas or steam.

The Ontario Government's decision not to enter into a 1947 tax rental agreement was based, among other things, on its unwillingness to surrender its major tax fields without the assurance of having the exclusive use of the minor fields of taxation. Furthermore, the Province was reluctant to rent its tax rights for a subvention which would not reflect the productivity of its tax fields. Ontario was experiencing a period of rapid expansion and the Government believed that it should share in the increased revenues from direct taxation which accompany such expansion. Nevertheless, the Ontario Government had stated that it was prepared, for a transitional period, during which con-

ferences could be held to evolve a more satisfactory allocation of functions and revenue sources, to rent the personal income and corporation tax fields to the Federal Government, provided the Federal Government vacated certain minor fields of taxation. Federal taxes on gasoline, amusement admissions, race track pari-mutuel pools, security transfers, electricity and duties on successions were all mentioned, but the Province was reconciled at the time to joint occupancy of the succession duty field. In 1945-46, the Federal Government had refused to vacate any of these tax fields unless it received from the provinces compensation which would leave its net financial position intact. After 1946, however, the Federal Government reversed its position and gradually withdrew from all but one of these minor tax fields. While it did not repeal its succession duties, the Federal Government did, nevertheless, raise the exemption limit on estates subject to duty from \$5,000 to \$50,000.

In keeping with the terms of the wartime tax agreements, which required the Federal Government to reduce its personal and corporation income taxes to enable provinces which so desired to re-enter these tax fields, the Federal Government reduced, effective January 1, 1947, its corporation income tax by 10 percentage points and its personal income tax by a somewhat greater amount. The Ontario Government thereupon levied a corporation income tax of seven per cent and special corporation taxes, such as taxes on capital, places of business and insurance premiums, but did not reoccupy the personal income tax field, despite the fact that it might have imposed a personal income tax of five per cent of the Federal rate without raising the burden of taxation. This arose from an amendment to the Federal Income Tax Act, effective January 1, 1947, which allowed in the case of those provinces which did not sign a tax rental agreement, a credit to the individual taxpayer of the amount of the tax he had to pay to his provincial government up to five per cent of his Federal tax liability. The Province continued, as before, to levy succession duties.

The Ontario Government's decision to retain its tax powers in the major direct tax fields proved financially advantageous. Over the five-year period, it raised without imposing a personal income tax \$18.7 million more from collecting its own taxes than it would have received under a tax rental agreement. Its receipts, exclusive of statutory subsidies, from the revenue sources retained amounted to \$452.1 million or an annual average of \$90.4 million, whereas the net compensation offered by the Federal Government for the three tax fields totalled \$433.4 million or an annual average of \$86.7 million. Had the Province levied a personal income tax of five per cent of the Federal rate, which it was entitled to do without increasing the level of taxation, it would have obtained over the period an additional \$72.4 million. Thus, the tax

fields had a value to Ontario of \$91.1 million more than the Federal Government was prepared to offer to the Province as rental for them.

Tax Rental Agreements, 1952-57

The 1947 agreements lapsed in 1952 and were followed by another set of five-year agreements which were substantially similar in nature. The latter included new guaranteed minimum payments, which were determined by adjusting the 1947 minimum payments in accordance with the composite increase in gross national product at market prices per capita and provincial population between 1942 and 1948. This resulted in an upward adjustment of nearly 50 per cent in the guaranteed minimum payments. The 1952 agreements also contained a new option for computing the minimum compensation—a method advantageous only to Ontario. It consisted of the sum of the following components:

- (a) the yield of a personal income tax of five per cent of 1948 Federal rates applied to 1948 incomes in the province;
- (b) the yield of a tax of 8½ per cent on corporation profits earned in the province in 1948;
- (c) the average revenue received by the province from succession duties either in the two years before succession duties were suspended or, in the case of Ontario and Quebec, the average of the three fiscal years 1946-47 to 1948-49; and
- (d) statutory subsidies payable in 1948.

With the exception of two modifications, the method of computing the adjusted payments was similar to that employed in the 1947 agreements. The first modification was the shift in the escalator clause from a three-year to a one-year basis for calculating the relevant factors with the result that the payments were much more sensitive to changes in gross national product per capita and provincial population. The other change in the method of calculation was the adoption of gross national product at factor cost in place of gross national product at market prices in order to eliminate the effect of changes in indirect taxes on the computation of the actual payments.

Under the 1952 agreements the provinces were not required to levy a five per cent corporation income tax, but instead the Federal Government allowed a credit equal to five per cent of the net income of corporations arising from business carried on in any province which did not enter into a tax rental agreement. In 1953, the Federal Government raised this tax credit to seven per cent, which was applicable in the case of Quebec, the only province which did not sign a tax agreement with the Federal Government.

All provinces, as before, retained the right to levy mining and logging taxes which were allowed as an

operating expense for Federal income tax purposes. The Federal Government also continued to pay annually to each province one-half of Federal corporation income tax collections from companies whose main business was the distribution, or generation for distribution, to the public of electrical energy, gas or steam.

The Ontario Government found the terms of the 1952 arrangements to be more acceptable and entered into an agreement for the rental to the Federal Government of its taxing powers in the personal income and corporation tax fields. The Province, however, retained the succession duty field, and the total payment to Ontario was subject to a deduction of an amount equal to the total succession duty credits allowed by the Federal Government on provincial successions arising from deaths during the five fiscal years ended March 31, 1957. During the course of the agreement, the amount of the deduction for succession duty credits in respect of each fiscal year was initially computed by taking one-third of the credits allowed in the three preceding fiscal years irrespective of the times of death from which such credits arose. In June of each year following the termination of the agreement until all information became available, the terms provided for the determination of the actual succession duty credits allowed on successions arising from deaths during the five fiscal years ended March 31, 1957, and the payment of the balance owing to the Federal Government or to the Province, as the case might be, with interest at the rate of three per cent per annum from December 31, 1954 to the date of payment. Of the nine provinces which entered into the agreements, Ontario was the only one which elected to retain the succession duty field. As pointed out, Quebec did not enter into an agreement and retained its rights to tax in all direct fields.

The guaranteed minimum payment to Ontario under the more favourable yield option amounted to \$101.8 million, an increase of \$34.6 million or nearly 52 per cent over the guaranteed amount of \$67.2 million offered in 1947. The adjusted payments received by the Province over the five fiscal years ended March 31, 1957, after deducting statutory subsidies and the amounts initially computed in respect of succession duty credits, totalled \$699.4 million or an annual average of \$139.9 million. The initial deductions made from the payments in respect of succession duty credits, however, proved too low, and the Province has been required by the terms of the agreement to make annual repayments to the Federal Government in accordance with the yearly determination of succession duty credits arising from deaths occurring during the five fiscal years of the agreement.

On its entry into the 1952 tax rental agreement, the Ontario Government stated that it was the best arrangement that could be obtained at the time, but that it was far from convinced it was the best arrangement that could be devised. Although the arrangement was a substantial

improvement over that offered in 1947, it fell short of a solution for the Province's revenue and other tax problems. Ontario considered the arrangement as no more than a "stopgap", pending the working out of a more satisfactory reallocation of tax and revenue sources. The Province believed that an effort should be made to achieve a tax structure that would not only be favourable to industrial expansion but would give full play to the willingness and power of the people to work and save. The tax arrangements, it asserted, should be such as to assure that economy and efficiency in governmental services would be encouraged and that each level of government would be provided with adequate revenue to carry out its responsibilities.

Tax-Sharing Arrangements, 1957-62

At the Federal-Provincial Conference held in 1955 and 1956 to consider arrangements to be effected upon the expiry of the 1952 tax rental agreements, the Federal Government advanced a revised approach to the problem of Federal-Provincial fiscal relations.

The new arrangements offered to the provinces for the five fiscal years commencing April 1, 1957 and ending March 31, 1962 were designed to enable all provinces to participate. Each province had the option of (a) renting any one or all of the direct tax fields of personal income, corporate income or successions; or (b) having either the personal or corporation income tax or both collected by the Federal Government at the standard rates of tax on an agency basis for an administrative fee payable by the province; or (c) collecting any one or all of the three taxes at whatever rates of tax it chose. All provinces, except Ontario and Quebec, rented all three direct tax fields to the Federal Government. The Province of Ontario elected to rent only the personal income tax field to the Federal Government and to exercise its own tax rights in the other two fields, while the Province of Quebec chose to levy its own taxes in all three fields.

In summary, the fiscal arrangements offered to the provinces took the following form:

1. Where a province entered into a tax rental agreement under which it undertook to refrain from imposing taxes in any one or all of the three tax fields, the Federal Government agreed to pay to the province in each fiscal year an amount equal to the yield of the standard tax or standard taxes applicable to the fiscal year in the field or fields vacated by the province. The standard taxes that the Federal Government was prepared to accept at the date of legislative enactment in 1956 were:

- (a) The yield of a tax on incomes of individuals in the province equal to 10 per cent of the total amount of tax payable in the taxation year nearest the fiscal year of payment under the Income Tax

Act (Canada) but not including the Old Age Security Tax. (In January, 1958, the provincial share was raised from 10 per cent to 13 per cent, effective for the year 1958 only, as an interim measure pending a complete review of the whole problem of fiscal relations between the Federal Government and the provinces. In January, 1959, the Federal Government announced the extension of the increase for the year 1959, and in October, 1959, undertook to extend the increase for the remaining two years of the arrangements.)

- (b) The yield of a tax of nine per cent on corporate taxable income earned in the province in the taxation year ending in the calendar year nearest to the fiscal year of payment.
- (c) The average annual yield of a tax equal to 50 per cent of the total amount of succession duty payable under any Act of Canada in the fiscal year of payment and the two fiscal years immediately preceding it. (Shortly after the passage of the Federal-Provincial Tax-Sharing Arrangements Act in July, 1956, an agreeing province was permitted, if it so desired, to have its rental payment for the succession duty field adjusted by the use of the current year only in determining standard succession duties rather than the three-year average.)

2. Where a province elected to impose and collect its own taxes in any of the three tax fields, at whatever rates it desired, the Federal Government agreed to rebate the Federal rate of tax in that field by the standard rate.

3. The Federal Government also agreed to pay to each province, whether it elected to rent or retain any or all of the tax fields, a tax equalization payment sufficient to bring the combined per capita yield of the standard taxes up to the weighted average per capita yield of the standard taxes in the two provinces, namely, Ontario and British Columbia, having the highest per capita yield at the standard rates of tax.

4. In addition, the Federal Government agreed to pay to each province, whether it elected to rent or retain any or all of the tax fields, a provincial revenue stabilization payment equal to the amount by which the total of the tax equalization payment and the yield of the standard taxes fell short of the greatest of:

- (a) the adjusted rental paid or available to the province in the fiscal year 1956-57 increased in accordance with the growth in provincial population from June 1, 1956 to June 1st of the fiscal year of payment;
- (b) the tax rental available if the 1952 agreement had been continued without alteration; and

(c) The revenue stabilization amount computed for the fiscal year 1958-59 at 95 per cent of the total of the tax equalization payment, the provincial revenue stabilization payment and the yield of the standard taxes for the fiscal year 1957-58; and for each subsequent fiscal year, 95 per cent of the average of the totals of the tax equalization payments, the provincial revenue stabilization payments and the yields of the standard taxes for the two fiscal years immediately preceding that fiscal year.

5 In calculating payments under the Act, the Federal Government agreed to make adjustments in the standard rates for individual income tax and succession duty for changes in Federal tax rates or exemptions from those in effect in the case of individual income tax on January 6, 1956 and in the case of succession duty on January 6, 1956 or where the succession duty is imposed by an enactment other than the Dominion Succession Duty Act, on the date of coming into force of that enactment.

As a result of the 1955-56 negotiations, certain other minor improvements were obtained. These were as follows: (a) The Federal Government as of December 31, 1956 repealed its tax of 2 per cent on the gross premium of insurance companies and allowed each province, whether or not a party to a rental agreement, to impose a gross premium tax. (b) A new formula was adopted for determining income derived from mining and logging operations which broadened the profits basis upon which the provinces were able to tax. (c) The limitation on the Fire Marshal's tax under the 1952 agreement of one-third of one per cent of fire insurance premiums was relaxed to allow for increasing the tax to provide an amount sufficient to cover the expenses of the Fire Marshal's office, provided, however, the tax did not exceed a rate of one per cent of fire insurance premiums. (d) The permissive rate of the municipal gross receipts tax on public utilities was raised from four per cent for telephone companies and three per cent for other companies to five per cent for all companies. (e) The level of annual licence, registration, and filing fees, which the provinces could impose on corporations without them being interpreted as special corporation taxes, was raised by 60 per cent or up to \$400 per year, whichever was the greater. In addition, the Federal Government agreed to continue to pay the provinces one-half of its corporation income tax collections from companies engaged in generating or distributing electric energy, gas or steam.

The Ontario Government recognized the new arrangements as an improvement over the preceding tax rental agreement. The options made available to the provinces, which permitted occupancy or rental of any one or all of the three direct tax fields, brought into Federal-Provincial fiscal relations a greater measure of flexibility than had

ever been experienced in the past. Formerly, the Federal Government refused to rent either the personal or the corporate income tax field separately—it was all or nothing. Another advantage was the restoration of provincial rights to tax insurance premiums without duplicate taxation. A further advantage lay in having the subsidies or equalization payments, available to all provinces except Ontario, openly stated so that they might be seen clearly and in consequence be properly appraised.

In the opinion of the Province of Ontario, the new arrangements, however, failed to provide adequate recognition of the increasing demand for services brought about by a rapidly growing population and industrial economy. It was pointed out that this type of growth entailed extensive and continuing outlays for education, highways, hospitals, waterworks, sewerage plants and municipal roads, all of which must be financed out of the limited tax revenue of the Province and its municipalities. In view of the growing magnitude and importance of provincial and municipal services, the Ontario Government did not believe that the arrangements, which limited the Province's share of the personal income tax field to 10 (raised to 13 on January 1, 1958) per cent of 1956 Federal rates of tax and of the corporation tax field to nine per cent of corporate profits, represented a fair and just appraisal of its requirements. The Province contended that it should be allotted a larger and more realistic share of the direct tax fields and claimed that the provincial share should be raised to 15 per cent of the Federal personal income tax and 15 per cent of corporate income. These rates were considered to be the minimum needed to enable the Province and its municipalities to finance their requirements over the following five years on a satisfactory scale. It was stressed that the cost of meeting the relentless demands arising out of rapid growth and development should be met, not by regressive taxation, but from the proceeds of progressive taxation that spring from growth and development. A realistic and sensible division of the major direct tax fields would also prove advantageous to the Federal Government, as development expenditures in both provincial and municipal spheres were soon reflected in increased revenues to the Federal treasury from sales and excise taxes and in larger personal income and corporation tax receipts.

The need for additional revenue over and above that offered under the new arrangements made it mandatory for Ontario to re-enter the corporation tax field, which had been rented for a five-year period under the 1952 tax rental agreement. A new Ontario Corporations Tax Act was introduced under which all corporations taxable under the Income Tax Act of Canada and transacting business in Ontario became subject to a tax of 11 per cent of taxable income earned in the Province, effective January 1, 1957. As the Federal Government allowed an abatement of its tax equal to nine per cent of taxable income,

the additional income tax imposed on Ontario corporations represented only two per cent of taxable income, thus restoring the corporation income tax structure in Ontario to the position that it occupied relative to the other provinces between 1947 and 1951. The Province's special taxes on capital and place of business, in effect during the five-year period from 1947 to 1951, were re-imposed at the same rates as had applied under the former Ontario Corporations Tax Act. However, since any corporation income tax payable to the Province was made deductible from the special taxes (excluding the insurance premium tax) otherwise payable, the special taxes (excluding the insurance premium tax) were to be payable only to the extent they exceeded the amount of the Ontario corporation income tax. The Province also imposed under the new Corporations Tax Act a tax of two per cent on all insurance companies calculated on the gross premiums payable by policyholders with respect to risks in Ontario. This tax replaced the tax formerly payable by the same companies under the Excise Tax Act of Canada and thus did not involve any increase in taxation.

The Province was also obliged to introduce a series of moderate tax increases in other fields, to take effect in 1957. These included higher rates of tax on gasoline, diesel fuel, mining profits over \$1 million, fire insurance premiums and increased licence fees on brewers. In addition, in order to effect the improvements gained as a result of the negotiations with the Federal Government, both The Logging Tax Act and The Mining Tax Act were amended to enlarge the profits basis upon which provincial taxes could be levied.

The 1957 Budget Address of the Treasurer of Ontario, in which the tax changes were announced, also included the Ontario Government's decision to introduce legislation authorizing the Province to make an agreement with the Federal Government for the purpose of renting its right to levy a personal income tax for the five-year period, from January 1, 1957 to December 31, 1961. Subsequently, at the time of signing the agreement, the Treasurer of Ontario asserted that, while Ontario was entering into an agreement which was the best that could be obtained at the time, the Province was far from satisfied with the conditions of the arrangement. He maintained that an arrangement which allocated only one-tenth of the personal income tax field and less than one-fifth of the corporation tax field to Ontario failed to take account of the problems of growth and expansion which the Province and its municipalities had to face. The hope was expressed that, even before the termination of the agreement, the Federal Government would recognize the needs of the provinces and municipalities and provide an adjustment that was more in keeping with realities.

Late in 1957, several improvements were made. A new Federal-Provincial Conference was convened on November 25, 1957, by the Right Honourable John G. Diefenbaker.

From that meeting came four measures of benefit to the provinces. Among these were a broadening of the unemployment relief assistance program, increased hospital construction grants and adjustments in the hospital insurance plan.

In respect of fiscal relations, a measure passed in January of 1958 as an amendment to the Federal-Provincial Tax-Sharing Arrangements Act of 1956 provided for an increase in the standard individual income tax rate from 10 per cent to 13 per cent, effective for the year 1958 only. This was advanced as an interim adjustment, pending the resumption of the new Federal-Provincial Conference to review the whole problem of financial relations between the Federal Government and the provinces. The interim increase in the standard rate provided an additional \$22 million in revenue to Ontario during the fiscal year 1958-59, and some \$56 million to all the provinces. While the Province of Ontario had stated that its needs for additional revenue were considerably more, the upward adjustment in the standard individual income tax was nevertheless welcomed as a preliminary step in seeking a more realistic sharing of the major direct tax fields. The Province still believed that its share should not be less than 15 per cent of the Federal individual income tax, 15 per cent of corporate income and 50 per cent of the Federal succession duties.

The special needs of the Atlantic region received close attention at the Conference in November, 1957. The passage in January, 1958 of Bill 247 added a new provision to the Federal-Provincial Tax-Sharing Arrangements Act. Under this measure, special additional annual payments to the Atlantic Provinces totalling \$25 million were scheduled for the four fiscal years commencing April 1, 1958. Amounts of \$7.5 million were made payable annually to Nova Scotia, New Brunswick and Newfoundland, respectively, with \$2.5 million going annually to Prince Edward Island. The provision of special assistance for the Atlantic Provinces was endorsed by Ontario, as it had long held the view that to meet genuine fiscal need was a prime purpose of Federal-Provincial fiscal co-operation.

On August 12, 1958, the House of Commons passed the Estate Tax Act, effective January 1, 1959. Under the new Act, which superseded the Dominion Succession Duty Act, tax collections were expected to be about 10 per cent below the tax which would have been collected if the Succession Duty Act had continued in effect. As the rental payment in respect of succession duty to provinces which have rented the field to the Federal Government is based on Federal succession duty collections, these provinces receive a smaller rental payment than they would if the Succession Duty Act had continued in effect. Ontario and Quebec, however, did not rent the succession duty field to the Federal Government. The Federal tax in respect of property situated in Ontario and Quebec, and

property situated outside Canada (other than real property) passing to beneficiaries resident in Ontario or Quebec, is reduced by one-half. Thus, the change in Federal legislation respecting successions does not affect the provincial revenues from the succession duty field in these provinces.

The Federal-Provincial Conference, despite the urging of the provincial premiers, was not reconvened in 1958. However, in the Throne Speech of January 15, 1959, the Federal Government announced that the Federal-Provincial Tax-Sharing Arrangements Act would be amended to extend for another year the increase in the provincial share of the individual income tax which had been raised the preceding year from 10 per cent to 13 per cent of 1956 Federal rates of tax. In addition, as the adjustment in the standard individual income tax rate was temporary and as there were other financial and economic problems of mutual concern which remained to be examined, the Federal Government proposed that the entire subject of financial relations between the Federal Government and the provinces receive active, co-operative study. For this purpose, it suggested the use of the machinery of the existing Federal-Provincial Continuing Committee on Fiscal and Economic Matters working under the direction of a committee of the Federal Minister of Finance and the Provincial Treasurers or Finance Ministers.

The Federal-Provincial Committee of Ministers of Finance and Provincial Treasurers met in Ottawa on July 6 and 7, 1959. Following the presentation of the views of the various governments, which included a strong recommendation from a large majority of the Provincial Ministers for a plenary Federal-Provincial Conference to be held before the end of 1959, the Committee launched a searching study of the Canadian tax structure and the entire field of Federal-Provincial fiscal relations. The subject matter was divided by the Committee into three categories. The first category consisted of policy questions, such as the possible need for a negotiating conference on matters concerned with the last two years of the Federal-Provincial Tax-Sharing Arrangements Act, to be discussed at the ministerial level without further preparatory work by government officials. The second category, consisting of 19 long-term studies, was referred to the Federal-Provincial Continuing Committee on Fiscal and Economic Matters for examination and report. The third category consisted of ten immediate problems, chiefly of a technical and administrative nature, on which the Technical Committee was requested to report prior to the next meeting of the Committee of Ministers.

At the second meeting held in Ottawa on October 15 and 16, 1959, the Committee of Ministers reviewed the reports submitted by the Continuing Committee and issued further instructions on various subjects under study. The request of most provinces for an immediate plenary conference of premiers was declined. The Federal Minister

of Finance avowed there was little point in calling such a conference, as the Federal Government was not in a position to increase the scale of the payments. The Federal Government was prepared, however, to continue the increase in the provincial share of the personal income tax from 10 per cent to 13 per cent in the remaining two years of the agreements. In addition, the Federal Government proposed that a full-scale conference be held in the summer of 1960 to consider what new arrangements should be adopted following the expiry of the existing arrangements on March 31, 1962. In the meantime, the Continuing Committee proceeded with its studies.

Under the 1957-62 Tax-Sharing Arrangements, Ontario has rented only its individual income tax rights to the Federal Government. The payments to the Province amounted to \$74.4 million in the fiscal year 1957-58, \$89.9 million in the fiscal year 1958-59 after deducting an adjustment of \$3.4 million with respect to the preceding fiscal year, and \$109.6 million in the fiscal year 1959-60 after adding adjustments totalling \$2.1 million with respect to the two preceding fiscal years. In January, 1961, the payment for the fiscal year 1960-61 was estimated at \$114.9 million.

During the course of the Conference of Ministers of Finance and Provincial Treasurers, the late Premier Paul Sauvé of Quebec opened talks with the Federal Government on the question of Federal grants to universities. The Federal Government had been making grants for universities since the fiscal year 1951-52. These grants were allocated among the provinces strictly on the basis of population. Within each province the distribution was made among the universities in accordance with full-time, intra-mural student enrolment in courses leading to degrees. While in the first year, the grants, amounting to over \$2 million, were accepted by the universities of Quebec, in the succeeding eight years, 1952-53 to 1959-60, only two colleges accepted the grants, and for the four years 1952-53 to 1955-56 the grants lapsed. Since then, however, the unclaimed grants in accordance with Federal policy have accumulated in the hands of the National Conference of Canadian Universities and its successor, the recently incorporated Canadian University Foundation. By February 29, 1960, the accumulation aggregated over \$25 million. The grants were not accepted by the universities of Quebec because the Province of Quebec regarded the scheme as a trespass upon the exclusive jurisdiction of the provinces over education. The talks between the Federal Government and the Premier of Quebec resulted in a set of proposals to all provinces which were embodied in an amendment to the Federal-Provincial Tax-Sharing Arrangements Act passed by the House of Commons on May 13, 1960. The amendment provided alternative arrangements so that grants to institutions of higher learning became payable either by the Federal Government through the Canadian Universities Foundation under the authority of

the Federal-Provincial Tax-Sharing Arrangements Act, or directly by a prescribed province. A "prescribed province" is a province which collects its own corporation tax and chooses to distribute among its institutions of higher learning additional grants totalling not less than \$1.50 per capita in a manner not inconsistent with that employed by the Canadian Universities Foundation in distributing grants to institutions of higher learning in a province that is not a prescribed province.

Where a province collects its own corporation tax and chooses to pay the additional grants to universities, its corporate taxpayers receive an added abatement of 1 per cent under the Income Tax Act of Canada, raising that abatement from 9 to 10 per cent. This option was made available for the years 1960 and 1961. As this added 1 per cent abatement varies in actual value from province to province, provision is made under the Act for the payment to or the recovery from a prescribed province of the amount by which the value of a 1 per cent standard corporation income tax falls short of or exceeds \$1.50 per capita on the population of the province. Quebec is the only province which has availed itself of this proposal, designed to meet the special conditions and attitudes of that Province. At the same time as the Federal Government provided for alternative arrangements for university grants, the 13 per cent standard rate on individual income tax was extended for a further period of two years, namely, the taxation years 1960 and 1961, the last two years of the current arrangements. On the basis of the estimate dated January 6, 1961, the value to Ontario of the 3 per cent increase in standard individual income tax was expected to be \$27 million for the fiscal year 1960-61.

Proposed Tax-Sharing Arrangements, 1962-67

The plenary Federal-Provincial Conference, which the Federal Government had proposed at the meeting of the Committee of Ministers in October, 1959, held its first session in Ottawa from July 25 to 27, 1960. Although the Conference was called primarily to discuss arrangements with which to replace the existing tax-sharing arrangements following their expiration on March 31, 1962, it was also concerned with a number of other matters, including some of those on which the Committee of Ministers and the Continuing Committee had been working. The problem of constitutional amendment was also raised and a Committee composed of the Minister of Justice of Canada and the provincial Attorneys-General was set up to consider the domiciling in Canada of the power to amend the British North America Act and the related question of the actual amending procedure.

A second plenary session of the Federal-Provincial Conference met in Ottawa from October 26 to 28, 1960. The Federal Government placed certain suggestions before the Conference as follows: firstly, that Federal tax rates

in the three shared tax fields be reduced at the time of the termination of the 1957-62 tax agreements by the amount of the existing standard rates, that is 13 per cent of Federal individual income tax at 1956 rates of tax¹, 9 per cent of corporate income and 50 per cent of Federal succession duties; secondly, that Parliament provide equalization payments or their equivalent in a total amount of \$220 million a year, which is approximately the total of the equalization payable in respect of the fiscal year 1960-61 plus the Atlantic Provinces Adjustment Grants and the special grants to Newfoundland under section 2 of the Newfoundland Additional Grants Act; and thirdly, that stabilization be provided up to the average of the yield of the standard taxes in the last two years of the 1957-62 agreements. The fiscal assistance of \$220 million a year would be distributed in any manner upon which all provinces could agree, provided that each of the Atlantic Provinces received at least as much from such a provincial formula of distribution as it was entitled to receive from equalization, the Atlantic Provinces Adjustment Grants and the Newfoundland Additional Grants Act in the fiscal year 1960-61.

At the July 1960 session of the Federal-Provincial Conference, Ontario proposed that, should the Federal Government be unwilling to vacate a large part of the field of direct taxes, the Federal Government should agree to seek a constitutional amendment which would permit the provinces to levy an indirect retail sales tax. Such a tax would be preferable in the interests of efficiency, economy of collection and convenience to taxpayers. At the October meeting, the Federal Government undertook to recommend that Parliament seek the necessary amendment to the British North America Act, subject to the approval of all provinces, and provided that the type of indirect retail sales tax authorized should not be such as to permit discrimination between goods produced inside and outside a province. It was later decided to withhold consideration of the question of amending the British North America Act to permit provincial indirect retail sales taxes until the Federal-Provincial Committee on constitutional amendment finished its deliberations.

A third meeting of the Federal-Provincial Conference was held in Ottawa on February 23 and 24, 1961, at which the Federal Government made firm proposals with respect to the tax-sharing arrangements to be adopted for the five-year period commencing April 1, 1962 and terminating March 31, 1967. These proposals involved several basically new approaches and substantially modified the suggestions put forward at the October Conference. With respect to the sharing of direct tax fields, the Federal Government proposed: firstly, that the tax rental system be discontinued leaving each province free to tax personal income, corporate income and successions to whatever

¹Approximately 14 per cent of Federal individual income tax at 1960 rates of tax.

extent it deemed necessary to meet its financial responsibilities; secondly, that the Federal Government withdraw from the corporation income tax field to the extent of the existing standard rate or abatement of 9 percentage points of taxable income, and progressively from the individual income tax field by 16 per cent of Federal rates in the first year, thereby raising the provincial share by about two percentage points above the existing standard rate of approximately 14 per cent of 1960 rates of tax, and by an additional one percentage point in each of the following four years up to 20 per cent in the fifth year. The Federal Government offered to collect the individual income tax or the corporation income tax or both, for any province which so desired, on condition that the province defined its tax base to be identical with the Federal definition. The Federal Government was not prepared to collect a provincial succession duty but any province which did not impose a succession duty would receive one-half of the yield of the Federal estate tax in that province. In any province which chose to impose its own succession duty, the Federal estate tax would be abated by 50 per cent.

The Federal Government also advanced two principal changes in the method of determining equalization payments. It proposed: firstly, that the equalization formula include not only the yield from the three standard taxes (with the increasing rates for individual income tax as outlined above) but as well one-half of the three-year moving average of gross natural resource revenue; and secondly, that the revenue over this broader base be equalized up to the national average per capita yield of all provinces rather than to the average per capita yield of the two highest yield provinces. Thus, for the five fiscal years, 1962-63 to 1966-67, each province would receive an equalization payment sufficient to bring its combined per capita yield from the standard taxes at the proposed rates and one-half of the three year moving average of its gross natural resource revenue up to the average per capita yield of all provinces from these sources. Furthermore, it was proposed to incorporate two guarantees into the equalization formula:

- (a) No province entitled to equalization under the national average formula would be worse off than it would be under a continuation of the equalization formula, tax rental agreements and Atlantic Provinces Adjustment Grants under the tax-sharing arrangements, 1957-62, and

- (b) No province would receive less in total than it received in the final year or on the average in the final two years of the 1957-62 arrangements.

A stabilization clause would be included in the new arrangements to prevent the value of the standard taxes plus equalization from falling below 95 per cent of the average of the two preceding years. In addition, the Federal Government proposed to raise the Atlantic Provinces Adjustment Grants \$25 to \$35 million to be distributed to them as determined by agreement among themselves and to continue the payment to Newfoundland of \$8 million per annum to assist in raising its public services to the level prevailing in the other three Atlantic provinces.

In his Budget Statement of March 9, 1961, the Treasurer of Ontario pointed out several advantages in the proposed arrangements. The provinces would not only receive a larger share of the individual income tax field, but, as they would be free to impose whatever rates of tax in the three tax fields they deemed necessary, they would be provided with greater flexibility in the raising of their revenues. The Federal Government would collect the individual income tax or corporation income tax or both, free of charge, for any province adopting the definition of income and certain other items contained in the Federal Income Tax Act and Regulations. Furthermore, the proposed equalization or fiscal need formula, while it would not benefit Ontario, would channel Federal fiscal need payments to provinces more accurately and equitably in accordance with their needs.

The Treasurer of Ontario stated, however, that although the proposed arrangements would afford some improvement, they would fall far short of meeting the revenue requirements of the Province of Ontario. On the basis of 1960 yields, the additional two per cent of individual income tax would have a value of \$17 million, and the additional six per cent, which would not be fully available until 1966, a value of approximately \$50 million. The proposed arrangement could not therefore be considered as an answer to the Province's additional revenue requirements which, he pointed out, amounted to a minimum of \$150 million. Accordingly, the Government of Ontario, after having carefully examined all the alternative possibilities of raising additional funds, concluded that it should ask the Legislature for its approval of a 3 per cent retail sales tax to become effective on September 1, 1961.

PART II



Economic and Social Aspects of Ontario

Physical Environment

Location, Area and Geographical Features

Ontario, the central province of Canada, is located in the heart of the North American continent. Its southern portion borders on the most heavily industrialized regions of the United States, eight states with a population of over 65 million—and these are adjacent to twelve others with an aggregate population of 30 million. It is situated between the Province of Quebec on the east and the Province of Manitoba on the west. Ontario's northern boundary is Hudson Bay and James Bay, while its southern limits are the St. Lawrence River and the Great Lakes system. The Province extends for about 1,050 miles from its most southerly point—Middle Island, south of Pelee Point in Lake Erie—to its most northerly regions on the shores of Hudson Bay (from 42° to 57° north latitude), and for 1,000 miles between the Quebec and Manitoba boundaries (from 75° to 95° west longitude).

Ontario is Canada's second largest province. It is as large as New York, Pennsylvania, Ohio, Michigan, Indiana, Missouri, Illinois and Wisconsin taken together, and it is half as large again as Texas and exceeds the combined areas of the United Kingdom, France and West Germany. The Province contains 412,582 square miles, of which 344,092 square miles, or 83 per cent, is land and the remaining 68,490 square miles is fresh water. The fresh water shoreline totals 2,362 miles and the salt water shoreline, on Hudson and James Bays, about 680 miles.

Its natural boundary lines of rivers and lakes give Ontario a very irregular shape. Geographical features divide the Province into two areas of unequal size—Northern and Southern Ontario; the natural division between the two sections occurs where the French River, Lake Nipissing and the Mattawa River cut through a relatively narrow neck of land between Georgian Bay and the Ottawa River. The southern section, which is by far the smaller of the two, contains about 50,000 square miles. It is roughly triangular in shape, lying between Lake Huron and the two easternmost Great Lakes and the Ottawa River.

Generally speaking, the topography of the Province varies between level and undulating. In Southern Ontario, level sand and clay plains cover nearly half the area, giving a topography of low relief, except for the Niagara Escarpment and several faults in the Ottawa Valley. One of the two upland regions lies just south of Georgian Bay, where the highest point in Southern Ontario—1,775 feet—is found; the other, which is in the Algonquin Park area and forms part of the Canadian Shield, has a maximum elevation of about 1,600 feet. Northern Ontario generally has low relief and its hills and ridges do not rise more

than 100 to 200 feet above the lakes and valleys. Around Hudson and James Bays lies a low, flat plain. The Precambrian Shield is generally over 1,000 feet above sea level, but at the watershed the elevation reaches about 1,500 feet, with several higher hills. The highest point in the Province—Tip Top Mountain, 2,120 feet above sea level—lies 150 miles northwest of Sault Ste. Marie on the coast of Lake Superior.

The famous Precambrian or Canadian Shield, a vast treasure house of mineral and forest wealth, covers most of Northern Ontario and one-third of Southern Ontario. Most sections of the Shield are too rocky for agriculture, but parts of the Great and Little Clay Belts and an area around Lake Nipissing, all in Northeastern Ontario, and several areas around Lake Superior and the Lake of the Woods, are suitable for farming. Southern Ontario, except in the eastern part where the Shield traverses it, has excellent soil and is one of the most productive farming areas in all Canada.

Ontario contains many islands, the most notable of which is Manitoulin, in Lake Huron. It is 1,068 square miles in area and is the largest fresh water island in the world. There are also two island groups which should be noted—the Thirty Thousand Islands, stretching along the east side of Georgian Bay, and the Thousand Islands, located at the outlet from Lake Ontario into the St. Lawrence River.

The Canadian portion of the Great Lakes makes up over two-fifths of the Province's fresh water area. In addition, there are many thousands of inland lakes of various sizes.

ELEVATIONS, AREAS AND DEPTHS OF THE GREAT LAKES

Lake	Elevation Above Sea Level (ft.)	Maxi- mum Length (miles)	Maxi- mum Breadth (miles)	Maxi- mum Depth (ft.)	Total Area (sq. miles)	Area on Canadian Side of Boundary (sq. miles)
Superior...	602.23	383	160	1,302	31,820	11,200
Michigan (U.S.A.)...	580.77	321	118	923	22,400	—
Huron ¹	580.77	247	101	750	23,010	13,675
St. Clair....	575.30	26	24	23	460	270
Erie.....	572.40	241	57	210	9,940	5,094
Ontario....	245.88	193	53	774	7,540	3,727
Total....					95,170	33,966

¹Includes Georgian Bay.

The Province has a considerable river system. The main rivers of Southern Ontario flow into the Great Lakes or into the Ottawa or St. Lawrence Rivers. Most of the larger Northern Ontario rivers drain into Hudson or James Bays, since the height of land lies not far north of Lake Superior. The shorter rivers, lying south of the divide, flow into Lake Superior and Lake Huron. In the far west of the Province, a number of rivers drain into Lake Winnipeg.

Land Forms and Soils

There are three main natural physiographic regions in Ontario: the Canadian Shield, the Interior Lowlands and the Hudson Bay Lowlands. In a more detailed breakdown of land forms, more regions could be listed. In Southern Ontario, for example, these smaller areas would be: the area sloping from the Niagara Escarpment to Lakes Huron and Erie; the Niagara Escarpment itself; South-Central Ontario between the Canadian Shield and Lake Ontario; the Canadian Shield; and the lowlands between the St. Lawrence and Ottawa Rivers.

Even within these smaller divisions, a diversity of land forms may occur. Some of the most interesting or important of these follow.

West of the Niagara Escarpment, in the counties of Dufferin, Grey and Wellington, is the "roof" of Southern Ontario. This is a gently undulating plain about 925 square miles in area and with an elevation of from 1,400 feet to 1,750 feet above sea level. A number of rivers, including the Saugeen, Maitland, Grand and Nottawasaga, rise in this watershed and then make their various ways to Lake Huron, Lake Erie or Georgian Bay. To the west, the plain slopes gradually down to Lake Huron and to the clay plain surrounding Lake St. Clair, while to the south it slopes to the sand and clay plains stretching along the shores of Lake Erie. These sand and clay plains were once lake bottoms. The main characteristics of this type of formation are the absence of stones and a level terrain. General farming with emphasis on livestock is pursued on the uplands, while a more specialized type of agriculture has developed on the former lake beds. Corn and truck crops do well on parts of the clay plain, as do sugar beets and soy beans. On the sand plains, particularly in Norfolk County, tobacco is grown extensively.

The Niagara Escarpment extends from Niagara Falls to the tip of Bruce Peninsula, a distance of 250 miles, and then forms the "backbone" of Manitoulin Island. It is seen in its most spectacular form at Niagara Falls. In a distance of 32 miles the Niagara River drops 326 feet, with about half of this drop occurring at the Falls. Along the brow of the Escarpment are vertical limestone cliffs, while the slopes below are carved in red shale. Steep v-shaped valleys which cut deep notches into the face of the Escarpment are characteristic features. The highest and most picturesque part is the Blue Mountain section near Collingwood, 1,775 feet above sea level or 1,100 feet above the waters of Georgian Bay. Here the rock is exposed in cliffs 150 feet high and huge blocks have broken away from the wall, leaving deep crevasses.

One of the scenic attractions in Southern Ontario is the Beaver Valley. This is a very sharply cut valley opening into Georgian Bay. The floor of the valley has, in addition to a well-drained loamy soil, a longer and more predictably frost-free season than many areas farther south. This latter fact is largely a result of the sheltering

heights and the presence of Georgian Bay. This combination of soil, physiographic and climatic conditions has made the valley ideal for the growing of apples and it is particularly famous for its Northern Spies.

In South-Central Ontario, the major relief is provided by a height of land which extends east from the Caledon Mountains in the Niagara Escarpment to the Trent River, a distance of about 120 miles. This ridge, the highest parts of which are between 1,000 feet and 1,300 feet above sea level, is up to eight miles wide and covers a total area of approximately 500 square miles. It is the watershed dividing streams which drain into Lake Ontario from those draining into Georgian Bay or the Trent River. The surface is hilly and is mostly composed of sandy or gravelly material. Much of the sand is subject to blowing. Some of the highest ridges are boulder clay. The south slope of this height of land has a variety of soils, some of which are very good. Beef cattle, hogs, potatoes and rye are the chief farm products of the district. In the Toronto area, however, dairying and fruit and vegetable growing have become the main agricultural pursuits.

The Iroquois Plain, as the lowland bordering Lake Ontario is called, extends from the Niagara River to the Trent River. At one time, it was covered with water; this accounts for the flatness of the land and the relative freedom from stones. One of the most important sections of this plain is the Niagara fruit belt which is bounded on three sides by Lake Ontario, the Niagara River and the Niagara Escarpment and extends westward as far as Hamilton. Sandy, clay and gravelly-loam soils are all found here. Grapes and tree fruits are the most important products of this region. The area between Hamilton and Toronto is primarily a well-drained sandy plain suitable for market and small fruit cropping. Gravel bars are also found here. At Scarborough, where the ancient shoreline comes close to the present-day one, bluffs stand out above the Lake—350 feet at their highest point. They are constantly being undercut by the waves of Lake Ontario. East from Scarborough, there is no pattern either in land forms or soils. It might be noted, though, that around Bowmanville and Newcastle there is a plain of fine sand and silt which is excellent for fruit and canning crops as well as for general farming.

One region of note which lies north of the height of land is the Holland Marsh. This area, about 20,000 acres in extent, lies in a valley about 15 miles long which opens onto the southern end of Lake Simcoe and which was at one time covered by the waters of that lake. Part of the marsh has been drained and the soil has proved excellent for the growing of vegetables.

The Canadian Shield underlies nearly one-third of Southern Ontario. Characteristic of this area, most of which is 1,500 feet above sea level, are forests and lakes, rocky knobs or hills with very little soil covering and small patches of flat land. Although agriculture is carried on,

the highlands of Haliburton and Algonquin are especially noted for their beauty and recreational advantages.

Most of the area east of the Canadian Shield was at one time covered by water. Except for a number of faults in the Ottawa Valley it is an area of generally level relief. This valley, comprising clay plains interspersed with rocky or sandy ridges, divides roughly at the City of Ottawa. East of the City, the clay is finer, has a lower moisture content, is less fertile and the drainage is somewhat poorer than west of the City. In the Winchester Clay Plain, which runs approximately through the centre of Eastern Ontario parallel to the St. Lawrence River, the soils are highly productive when drainage is established. There is some bog in the area. Fluid milk and cheese are the chief products of this plain. Indeed, dairying is the principal agricultural activity throughout Eastern Ontario.

A large area—nearly 1,400 square miles—of shallow soil over limestone runs from the St. Lawrence River nearly to the Ottawa River. Poor drainage, stoniness and drought in summer have made most of the area unsuitable for agriculture. The farm economy is based on summer dairying, supplemented by the production of maple syrup. The greatest concentration of productive maple groves in the Province is in this area.

There are sand plains near Petawawa and Edwardsburg and one to the south of the Ottawa Clay Plain. The sands vary considerably in texture, some being coarse and apt to blow while others, of finer texture, are good for agricultural purposes.

Most of Northern Ontario is underlain by the Precambrian rocks of the Canadian Shield which is one of the richest and most valuable areas in the world for minerals, forests, water-power resources and recreational opportunities. The area bordering Hudson and James Bays, the land around Lake Timiskaming and all of Manitoulin Island, are underlain by younger rocks, similar to those found in Southern Ontario.

The Hudson Bay Coastal Plain is a flat area with low ridges which follow the contours of the bay. Drainage is poor except on these ridges and on the banks of the rivers which cut through them, so that marshes and muskegs abound.

Most of the Great Clay Belt is very flat and poorly drained. Consequently, large areas of muskeg occur. It has a deep covering of peat, sometimes to a depth of six feet. As more than three feet of peat makes land unsuitable for agriculture, and as the peat is shallower near the large streams, the best land lies near the river banks. There are also some sandy areas. These have better drainage than the clay and here soils have formed which are suited to the growing of potatoes, dairying and cattle raising. In the small lowland areas around Fort William and Rainy River, there is some good agricultural land.

Within the Canadian Shield (most of which is more than 1,000 feet above sea level) are a number of land

forms and a variety of soils. The highest part of the Shield occurs in a series of upland regions along the shore of Lake Superior and in the Kenora District. This height of land has an elevation of about 1,500 feet, but individual hills stand out above the rest. Characteristic of the upland areas is the tremendous number of rivers and lakes of all sizes and the lack of land suitable for agriculture. There are large areas of base rock, rock with shallow covering, or deep, coarse sand plains, all too dry for normal soil development. North from the height of land, the Shield slopes downward very gently to the coastal plain of Hudson Bay, which is less than 500 feet above sea level.

As one goes farther north from Lake Superior, the relief becomes somewhat gentler, the number of lakes decreases and the number of bogs increases, since poor drainage prevents normal soil development.

Climate

About three-quarters of Ontario lies south of the northern limit of agricultural growth. The July isotherm of 60° F. mean temperature—running from near the bottom of James Bay west and slightly north to the Manitoba border—roughly marks the northern limit of commercial forests; for successful agriculture the limit is somewhat south of that line. The effective raising of cereal crops usually requires at least five months of growing temperatures (above a mean of 42° F.). In most of Southern Ontario the growing season is six months or more. With a shorter period, the variety of crops which can be grown is restricted.

The Great Lakes exert a considerable influence on the climate of Southern Ontario, providing moisture in the summer and moderating the winters. They lengthen the frost-free period by holding off the hard frosts of the late autumn and reducing the difference between day and night temperatures. January is generally the coldest month in Ontario and July the warmest. In Southern Ontario, the winter isotherms follow closely the shores of the Great Lakes and there is a north-south gradient of about 1° F. for every 20-25 miles.

Based primarily on temperatures, three main climatic regions are to be found in Ontario. The first comprises the far north of the Province to just south of James Bay and has a growing season of less than five months. The second, or middle section of the Province has five to six months with a mean of 42° F. or higher and a July mean ranging between 60° and 65° F. The third, which comprises all of Southern Ontario and north to about the latitude of Sault Ste. Marie, is considered to have a long summer, with more than six months of growing temperature and a July mean ranging from 64° F. in the northern part to as high as 74° F. in the southwestern tip of the Province. Many variations are to be found within these main regions. For example, the two upland sections of Southern Ontario—Algonquin Park and the northern

part of Southwestern Ontario, lying south of Georgian Bay—have a lower temperature than average and a higher rainfall; in Prince Edward County, high summer temperatures are combined with lower than average rainfall; Eastern Ontario is an area of heavy precipitation, while temperatures vary greatly; the Niagara fruit belt has a warmer summer and greater freedom from spring and fall frosts than the rest of the Province and does not have extreme winter temperatures; Southwestern Ontario has higher summer temperatures and lower rainfall, while Pelee Island is the warmest place in Ontario.

The number of frost-free days varies considerably throughout the Province. At Leamington, in Southwestern Ontario, there are 170-175 frost-free days, while in the uplands of Algonquin Park there are only 80-100 days. Around North Bay and Sudbury, the frost-free period lengthens to about 125 days and then shortens farther

north, to about 75 days around Moosonee and to 60 days or less just south of Hudson Bay.

Precipitation

The mean annual precipitation in Southern Ontario varies from 25 inches to 40 inches. Distribution throughout the year is fairly uniform, with no pronounced wet or dry season. The highest precipitation occurs on the slopes facing the east coast of Lake Huron and Georgian Bay and in Eastern Ontario. Pelee Island, the Niagara Peninsula and Prince Edward County tend to have a somewhat lighter precipitation than average. In Northern Ontario, precipitation ranges from 40 inches on the slopes to the east of Lake Superior (the wettest place in Ontario) to about 15 inches in the far north. More than half of this occurs during the warm season—the maximum falling in mid-summer in the west and late summer and autumn in the east.

The distribution of snowfall, in general, follows the pattern of total precipitation. A band of heavy snowfall extending from London, in Southwestern Ontario, to Owen Sound and Parry Sound averages more than 10 feet of snow each winter. In the northern part of Northern Ontario, the snowfall is generally under five feet per year, while in the rest of the area it is from seven feet to nine feet.

HOURS OF BRIGHT SUNSHINE IN ONTARIO FOR
SELECTED CENTRES, 1951, 1958 AND 1959

	1951	1958	1959	Long-Term Average
Fort William-Pt. Arthur	n.a.	n.a.	2,100	n.a.
Harrow	1,633	2,030	1	2,019
Kapuskasing	n.a.	1,567	1,676	1,646
Lindsay	1,761	1,952	1	1,833
London	n.a.	1	2,099	1,924
Moosonee	1,472	1,517	1,696	1,545
Ottawa	1,760	1,964	2,065	2,010
Toronto	1,975	2,113	2,120	2,047

n.a. Not available.
Records incomplete.

Population

Ontario's population reached 6,089,000 on June 1, 1960, having passed the six million mark at the beginning of October 1959. Population growth declined from the exceptionally high rate of 4.0 per cent in 1956-57 to 2.3 per cent in the year ending June 1960; although this was a lower rate of growth than the average of 2.9 per cent for the post-war years up to 1959, it was still a faster one than in any earlier period since the turn of the century. Between June 1959 and June 1960, approximately 11,500 people were being added to Ontario's population each month.

Age Distribution

Trends in effect since the forties have resulted in some very substantial shifts in the age composition of the population. High birth rates, starting about 1946, brought a rapid rise in the proportion of children in the population. In June, 1960, children under 15 years of age made up 31.6 per cent of the total. This is the highest proportion since 1901 when 31.3 per cent of the population was under 15. It means that we now have 1,923,000 young people of school age or under. In 1941 only 924,000 or 24.2 per cent of the total population were in these young

age groups. On the other hand, the low birth rates of the thirties have resulted in a proportionately smaller number of persons in the age group 15 to 24 and a shrinking proportion 25 to 44 years of age. This phenomenon of fewer people in the young working age groups of the population is expected to continue for the next 10 years or until the babies born during the post-war period reach maturity. By about 1965 these young people will start to enter the labour market in fairly large numbers and by 1965-1970 they will begin to reach the age of family formation.

Place of Birth

Recent large-scale population movements have resulted in substantial changes in the racial composition of Ontario's population. Until World War II, Ontario people were largely British in origin. Moreover, the proportion of Ontario-born persons in the population was rising. The rapid economic development of the Province and other factors both in Canada and abroad have, since 1945, attracted tremendous numbers from other parts of the nation and beyond, with the result that the proportion of

the total population which originated elsewhere than in Ontario has increased greatly. In 1941, 74.9 per cent of persons resident in the Province were Ontario-born, compared with 72.6 per cent in 1951.

POPULATION OF ONTARIO BY PLACE OF BIRTH, 1941 AND 1951

Place of Birth	1941		1951	
	Number	% of Total	Number	% of Total
Ontario.....	2,835,717	74.9	3,337,593	72.6
Canada other than Ontario.....	218,656	5.8	409,984	8.9
United Kingdom.....	437,173	11.5	433,391	9.4
Other Commonwealth Countries.....	11,972	0.3	8,347	0.2
U.S.A.....	71,847	1.9	72,303	1.6
Europe.....	202,838	5.4	323,289	7.0
Asia.....	8,141	0.2	10,457	0.2
Other.....	1,311	0.0	2,178	0.1
Total.....	3,787,655	100.0	4,597,542	100.0

The large migration of people from the Maritime and Prairie Provinces to Ontario—to participate in this Province's rapidly expanding economic activity—is reflected in the increased proportion of Ontario's population born in other provinces of Canada: some 5.8 per cent in 1941 and 8.9 per cent in 1951. There has also been an increase in the proportion of Europeans, other than British, in the population. Since 1951, the proportion of European-born in the population has grown even more than in the 1941 to 1951 period; about 800,000 immigrants have arrived here since June 1951, nearly 57

per cent of them, or about 450,000 from continental Europe. Even if many of these immigrants have proceeded to the United States and other parts of Canada, the European-born in the Province probably aggregate close to 600,000 or between nine and ten per cent of the total population.

The total number of Ontario's citizens born in the United Kingdom was slightly lower in 1951 than in 1941, 433,000 as compared with 437,000. However, in recent years there has been a large influx of British immigrants so that the number of British-born has likely increased. About 280,000 of the immigrants who have come to Ontario since 1951 have been of British origin.

IMMIGRANT ARRIVALS NAMING ONTARIO AS THEIR PROVINCE OF DESTINATION, BY ETHNIC ORIGIN, 1946 TO 1959

	Number	% of Total
British.....	348,000	35.0
European.....	558,000	56.2
Middle Eastern.....	20,000	2.0
Asiatic.....	7,000	0.7
From U.S.A.....	58,000	5.9
Others and Not Stated.....	2,000	0.2
Total.....	993,000	100.0

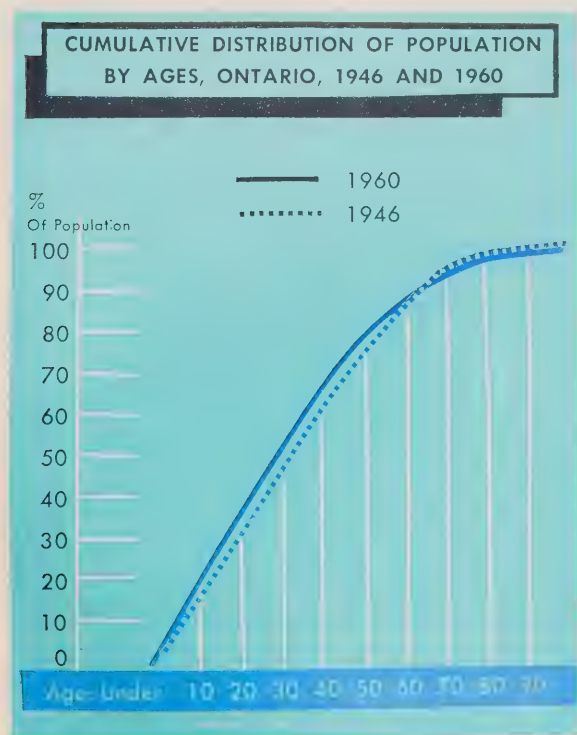
Immigration

Immigration to Canada and Ontario has shown great fluctuations over the past half century both because of changing conditions here and because of changes in the political and economic situation in Europe. Since 1946, a total of about 1,000,000 immigrants has come to Ontario or an average of approximately 70,000 immigrants per year. Totals were much above this average in 1956 and 1957—91,000 and 147,000, respectively—but fell to about 64,000 in 1958, 56,000 in 1959 and 54,000 in 1960.

Ontario also gains population from other provinces. While net movements into the Province from the rest of Canada appear to have been much lower in 1958 and 1959 than in either 1956 or 1957, we may have gained in each year about 4,000 to 5,000 from the other provinces. Emigration also has a notable effect on our population. We have estimated that over the long term Ontario may lose 30,000 to 35,000 persons per year through emigration and last year we lost close to 35,000. But total migration to Ontario exceeded emigration by between 30,000 and 35,000.

Vital Statistics

There has been a fairly continuous rise in birth rates in Ontario from a low of 16.9 per thousand population in 1937 to a high of 26.8 per thousand in 1957. After which they fell slightly to an estimated 25.5 per thousand in 1960. High birth rates have continued in spite of the fact that the people born in the thirties—the low birth rate years—are now in the family formation age groups. Although women of child bearing age have decreased in relation to the total



population from 23.0 per cent (the approximate level of the previous 25 years) in 1946 to 20.7 per cent in 1960, the remarkable rise in fertility has prevented an accompanying fall in the birth rate. Fertility (births per 1,000 females aged 15-44) dropped to a low point of 73.4 in 1937 and has risen almost continuously since then. In 1946, the year when the percentage of women of 15-44 started to fall, the fertility rate was 103.4 and by 1959 it had risen to nearly 127 although it appears to have dropped several points in 1960. During the next few years the girls born in the post-war high birth rate years will begin to move into the 15-44 age group which will tend to halt the decline in this group as a percentage of the total population; in addition, the trend towards earlier marriages and larger families is conducive to even higher fertility. These two factors are favourable to a continuing high birth rate.

Death rates have been steadily falling as a result of improvements in medicine, better sanitation and generally higher standards of living. Life expectancy for males increased from about 46.60 at birth at the beginning of this century to 66.33 in 1951. Females tend to live longer than men and the spread between male and female life expectancy is increasing. Women on the average could expect to live to 70.83 years in 1951 as compared with 48.70 years in 1900. At present life expectancy at birth may be as high as 70 years for males and 75 years for females.

Crude death rates in the Province were reduced from 13.6 per thousand in 1911 to 10.6 in 1937; between 1953 and 1957 they were fairly steady at about 8.7 per thousand population, dropping to 8.4 per thousand in 1958 and further to an estimated 8.2 per thousand in 1960.

Marriages were fairly stable at between 46,000 and 47,000 per year from 1956 to 1959 but fell to an estimated 45,200 in 1960. The trend toward fewer marriages in evidence during the twenties and early thirties appears to have been reversed in the late thirties. This change can be seen in the following table which shows the proportion of the population married, in selected age groups, 1921 to 1956.

PERCENTAGE MARRIED IN SELECTED AGE GROUPS
BY SEX, ONTARIO, 1921 TO 1956

Males:	1921	1931	1941	1951	1956
15-19 years.....	0.72	0.45	0.64	1.63	1.53
20-24 years.....	19.60	16.54	19.43	31.09	32.95
25-34 years.....	62.12	61.00	62.56	74.55	76.59
Females:					
15-19 years.....	6.09	5.60	6.87	10.29	10.25
20-24 years.....	39.69	37.51	42.72	57.21	62.17
25-34 years.....	71.63	72.46	72.74	83.91	87.10

Along with the increased proportion of people marrying, there has been a trend toward earlier marriages. In 1938 and 1939 only about 62 per cent of the brides were under 25 but the proportion of brides in this young age group has been gradually increasing since the period

immediately prior to World War II and in 1958 over 71 per cent of all brides were under 25 years of age.

The trend toward earlier marriages has meant that women are having their children at an earlier age. This may not materially affect the average family size; it may just mean that women have their families sooner. It does, however, shorten the length of a generation (the average duration between the birth of a female and the birth of a daughter to that female). This shortening of the length of a generation will increase fertility rates over the long run and so result in higher crude birth rates and more rapid population growth.

Families

Between 1941 and 1959 the number of families in Ontario grew by 559,000 under the joint influence of immigration and natural proliferation, to an estimated total of 1,468,000 families. Comparison of this 61 per cent increase with the 57 per cent increase in Ontario's population during the same period indicates how rapid has been the rate of growth. The 1956-57 increase of 4.6 per cent in the number of families represents the highest annual rate of increase during the period. The average number of persons per family was 3.6 in 1941 and 3.4 in 1951, and then, reversing a gradual long-term decline, rose to 3.6 persons in 1959.

Children in Families

From 1941 to 1959 the number of children living at home increased by about 70 per cent and this increase was solely the result of the high birth rates in the late forties and fifties. During that period, the number of children under 14 doubled. On the other hand, because of the trend toward earlier marriages, there was an actual decline between 1941 and 1951 in the number of young people 14 to 24 years of age living with their parents.

During the twenties and early thirties there was a trend toward smaller families. Many marriages were childless and a large proportion of the rest had only one or two children. Since World War II, there has been a renewed social emphasis on the home and family and, as a result, there are far more families with three, four or five children. In Ontario, families' with from two to five children at home are becoming the predominant group, while a proportionate reduction is occurring in families at either extreme, that is, with either no children or more than six children at home. Moreover, the average number of children per family has increased from 1.4 between 1947 and 1954 to 1.5 between 1955 and 1958 and to 1.6 in 1959; it thus appears that there is a trend towards moderately larger families. This conclusion is substantiated by the declining proportion of births regis-

tered since the early post-war years as the first and second birth in the family, and the rising proportion registered as the third, fourth, fifth, sixth and seventh birth in the family.

ONTARIO FAMILIES WITH CHILDREN 24 YEARS AND UNDER AT HOME, SELECTED YEARS 1941 TO 1959

	Number of Families with Children 24 and Under at Home			Total No. of Families	Average No. of Persons Per Family
	0-3 children	4-6 children	7+ children		
1941	805,380	87,370	16,460	909,210	3.6
1947 ¹	990,000	83,000	12,000	1,085,000	3.4
1948 ¹	1,009,000	86,000	13,000	1,108,000	3.4
1949 ¹	1,041,000	86,000	10,000	1,137,000	3.4
1951	1,063,873	86,219	12,680	1,162,772	3.4
1952	1,105,000	97,000	11,000	1,213,000	3.4
1953	1,125,000	98,000	14,000	1,237,000	3.4
1954	1,176,000	104,000	13,000	1,293,000	3.4
1955	1,195,000	106,000	14,000	1,315,000	3.5
1957	1,266,000	126,000	13,000	1,405,000	3.5
1958	1,291,000	137,000	14,000	1,442,000	3.5
1959	1,306,000	145,000	17,000	1,468,000	3.6

¹Revised and adjusted.

Rural-Urban Distribution of Families

There are two distinct trends visible in the rural-urban distribution of Ontario families between 1941 and 1956. In line with the decline in rural population in recent years, rural families are declining both numerically and as a proportion of the total number of families. At June 1, 1956, the 298,111 rural families in Ontario constituted 22.2 per cent of the total, whereas in 1941, 335,950 rural families comprised almost one-third of the total.

On the other hand the average number of persons per rural family—always larger than the average number of persons per urban family—after declining between 1941 and 1951, took an upward turn and by 1956 was 3.9, as compared with 3.4 persons per urban family. However, the increase in family size has proved inadequate to counteract the effect on rural population of the trend away from rural living. Although urban families have, on the average, fewer children under 14 than rural families, the total number of children in this age group has experienced a phenomenal 124 per cent increase in urban areas, as compared to the small 17 per cent increase in rural areas.

ONTARIO FAMILIES, RURAL-URBAN DISTRIBUTION AND NUMBER OF CHILDREN 24 YEARS AND UNDER AT HOME, 1941, 1951 and 1956

		Number of Families with Children 24 and Under, at Home				Total No. of Families	Average No. of Persons Per Family
		0-2 Children	3-4 Children	5-6 Children	7+ Children		
1941 ¹	Urban	464,520	80,670	20,500	7,530	573,220	3.4
	Rural	250,460	57,530	19,060	8,940	335,990	3.8
1951 ²	Urban	716,199	108,782	18,224	5,455	848,660	3.3
	Rural	233,254	57,130	16,503	7,225	314,112	3.7
1956	Urban	842,446	165,554	28,840	7,621	1,044,461	3.4
	Rural	209,658	61,956	18,507	7,990	298,111	3.9

¹Revised and adjusted.

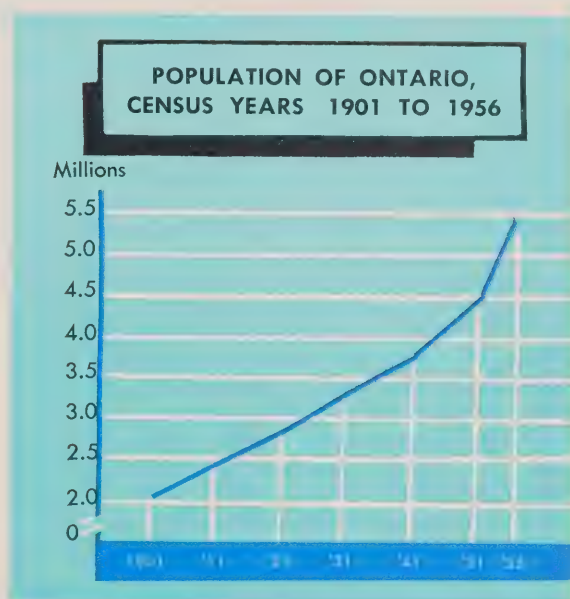
²From and including 1951, Urban includes all persons residing in cities, towns and villages of 1,000 and over whether incorporated or unincorporated, as well as in all parts of the census metropolitan areas.

The trend toward earlier marriage or independence on the part of the 14 to 24 age group appears to be more pronounced in the rural areas than in the urban communities. There has been a slight decline between 1941 and 1956 in the total number of rural children 14 to 24 living at home; the equivalent urban group still shows a slight increase, although this has been insufficient to prevent a small absolute decline in the total number of older children living at home in Ontario.

Urban families, which increased by 82 per cent between 1941 and 1956, constituted 77.8 per cent of total Ontario families in 1956. Although the trend toward larger families discernible in the rural population is also present in the urban population of Ontario, urban families are still smaller than rural ones.

Trends and Characteristics Affecting Future Growth

The population of Ontario has shown great fluctuations in growth over the past 50 years but, at the present time, it is increasing from year to year at a record pace. The rate of growth was about 1.5 per cent per year in the early part of this century and less than one per cent per annum during the thirties. Changing attitudes toward the



family, and other factors provided a new impetus during the decade from 1941 to 1951 when the population increased by nearly two per cent per year. This trend has continued—but more explosively—so that since 1951

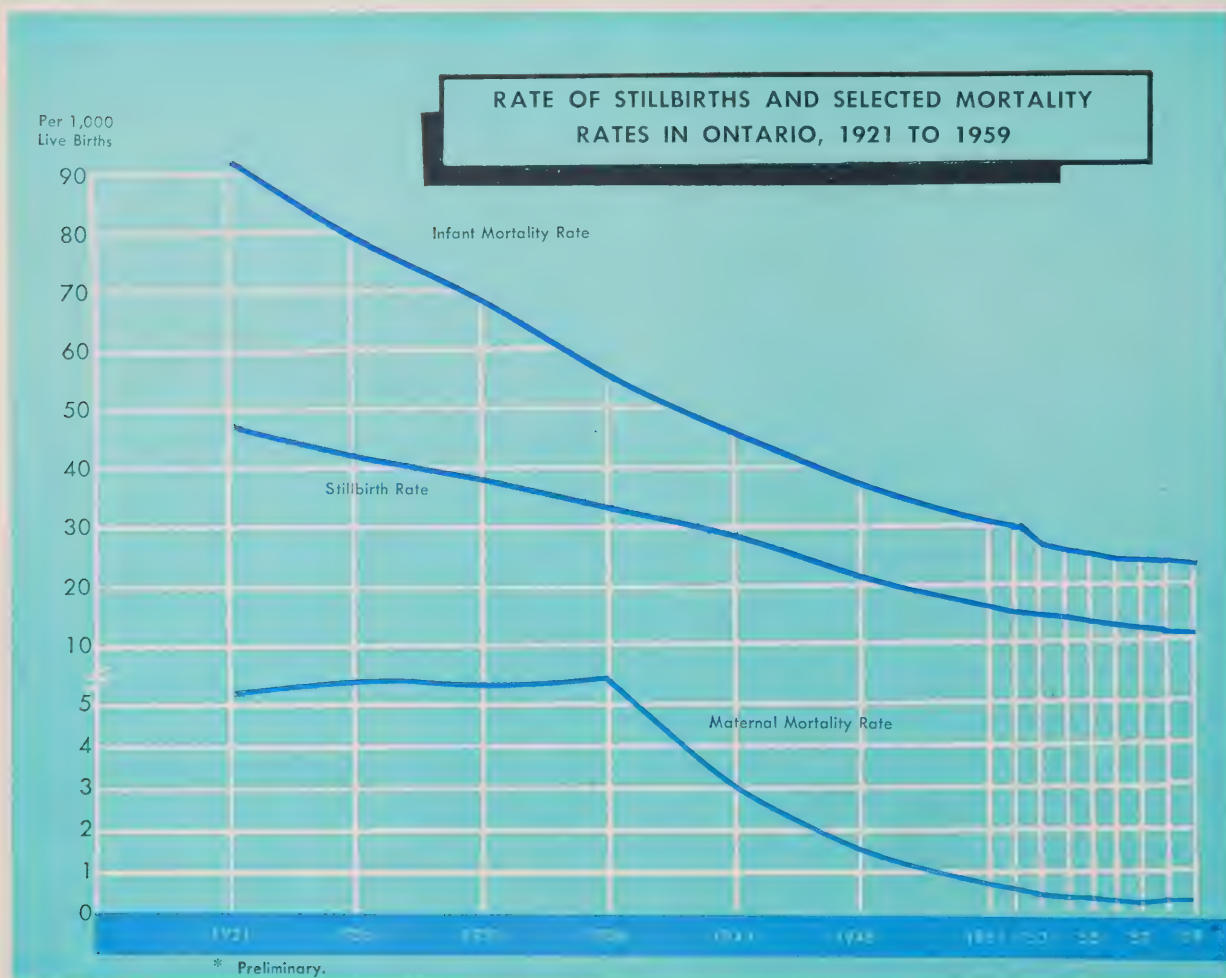
the Province's population has been growing by an average of 3.2 per cent per year.

Increasing birth rates have been one of the major factors behind this rapid population growth. A high level of economic well-being, a favourable social attitude toward increased family size and the general movement of the population to the suburbs have resulted in continually rising birth rates since World War II. The crude birth rate in the Province increased steadily from a low of 16.9 per thousand population in 1937 to 26.4 per thousand in 1959 but dropped slightly in 1960. Because of the low birth rates in the thirties, there are now relatively few women in the child-bearing age groups. This has kept total births from increasing as rapidly as might otherwise have occurred. However, the inflow of young adult immigrants together with increasing age specific fertility rates in the younger age groups have until now maintained the crude birth rate at a high level and this seems to be con-

tinuing. Starting about 1965, when the post-war babies begin to reach marriageable age, we can expect, providing other factors are favourable, another boom in births.

The increase in births can be partly accounted for by the increased marriage rate and the trend toward earlier marriages. At the time of the 1956 Census, 69 per cent of the women over 15 years of age were married as compared with 58 per cent in 1931. The upward trend is most apparent in the 20-24 year age groups. In 1956, 62 per cent of the women and 33 per cent of the men in this age group were married as compared with only 38 per cent of the women and 17 per cent of the men in 1931.

Earlier marriages have been reflected in higher birth rates in the younger age groups. Fertility rates have been steadily rising for all women under 35. While there has been a tendency for births to women over 35 years of age to decline, this is not too significant because by far the



largest proportion of births has always been to women between 20 and 35 years of age. Along with the increased marriage rate and high fertility rate there has been a tendency towards increasing the average family size. This tendency is apparent in the figures on births by order in family. First and second births dropped from about 65 per cent of the total in the early post-war years to 55 per cent in 1958, whereas, third to seventh births increased from a low of 30 per cent of the total in 1947 to 42 per cent in 1958. There was also some decline in the eighth or higher birth but this seems to have levelled out at about three per cent of the total.

Improved standards of hygiene and medical services and greater medical knowledge are rapidly extending the average life span. For the past 35 years female mortality rates have been declining at a fairly steady rate in all age groups and male rates have also shown a steady drop for all age groups under 50. There has been little or no decline in death rates of men over 50 during this period. The most striking change has been the decline in infant deaths. The death rates for population up to four years of age dropped from 28.3 per thousand in 1921 to 6.3 per thousand in 1958; total death rates for the Province dropped from 11.8 to 8.4 per thousand over the same period. Undoubtedly, further improvements in medical knowledge will continue to reduce death rates.

Forecasting trends even for such relatively stable variables as birth and death rates is subject to considerable error, because of the possibility of unpredictable changes in human reactions and attitudes. However, the historical movement of such variables is at least marked by distinguishable trends. Immigration, on the other hand, is very erratic. In an area such as Ontario, where immigration accounts for a major part of population growth, population projections are subject to a wide margin of error. The marked fluctuations of immigration over the past 39 years are indicated in the following table, which shows average annual immigration to Ontario for the intercensal periods 1921 to 1956 with the average gain in actual population from net migration and also annual figures for the years 1956 to 1960.

AVERAGE ANNUAL IMMIGRATION TO ONTARIO, 1921 TO 1960		
	Annual Average Immigrant Arrivals	Net Gain Through Exchange of Population With Other Areas
1921-1931	42,200	15,400
1931-1941	6,300	7,800
1941-1951	28,200	30,500
1951-1956	82,800	75,000
1956-1957	135,592	116,000
1957-1958	100,318	79,000
1958-1959	61,104	44,000
1959-1960	54,607	32,000

The lack of any consistent pattern in population movements from other countries and from other provinces makes the task of estimating future effects of migration a very difficult one. We have assumed that the high level of economic prosperity of the past decade and a half

will continue, and hence that the standard of living in Canada will be sufficiently higher than that in most European countries to provide an incentive for people to emigrate to Canada. We have also assumed that, even though the economies of other provinces are becoming more diversified, much of the industrial growth in Canada will continue to be concentrated in central Canada and particularly in southern Ontario. On the basis of these assumptions, it is estimated that over the next 20 years Ontario will gain an average of about 40,000 persons per year through population movements. Net immigration levels have been much higher than this during the past few years but immigration has fallen off sharply since 1958 and immigrants are now entering at about the estimated long-run average rate. These estimates are of course quite rough; projections of this type, no matter how refined, are necessarily little more than an educated guess.

Population Projections

The population projections in this study represent a revision of the projections made in the Ontario Submission to the Royal Commission on Canada's Economic Prospects. Such a revision was considered necessary because of the changes in trends as indicated by the 1956 Census data, and the wave of immigration generated by the Suez and Hungarian crises in 1957. The projections are an extension of past trends, based upon our best judgment of the future as seen at the moment. Although they are in a sense ventures into prophecy, they will not be dignified by the terms "estimates" or "predictions". There is no suggestion that they will necessarily be borne out.

These population projections are based on the assumptions that during the next 20 years there will be further small increases in age specific fertility rates, a continuing

POPULATION OF ONTARIO BY CENSUS YEARS WITH AVERAGE ANNUAL POPULATION INCREASE FOR INTERCENSAL PERIOD AND PROJECTIONS TO 1976

	Population	Average Annual Increase
	(000's)	%
1921	2,934	1.5
1931	3,432	1.6
1941	3,788	1.0
1951	4,598	2.0
1956	5,405	3.3
1957 ¹	5,622	4.0
1958 ¹	5,803	3.2
1959 ¹	5,952	2.6
1960 ¹	6,089	2.3
	Projected Population ²	Estimated Average Annual Increase Over Previous Five-Year Period
	(000's)	%
1966	6,990	2.3
1971	7,898	2.5
1976	8,973	2.6

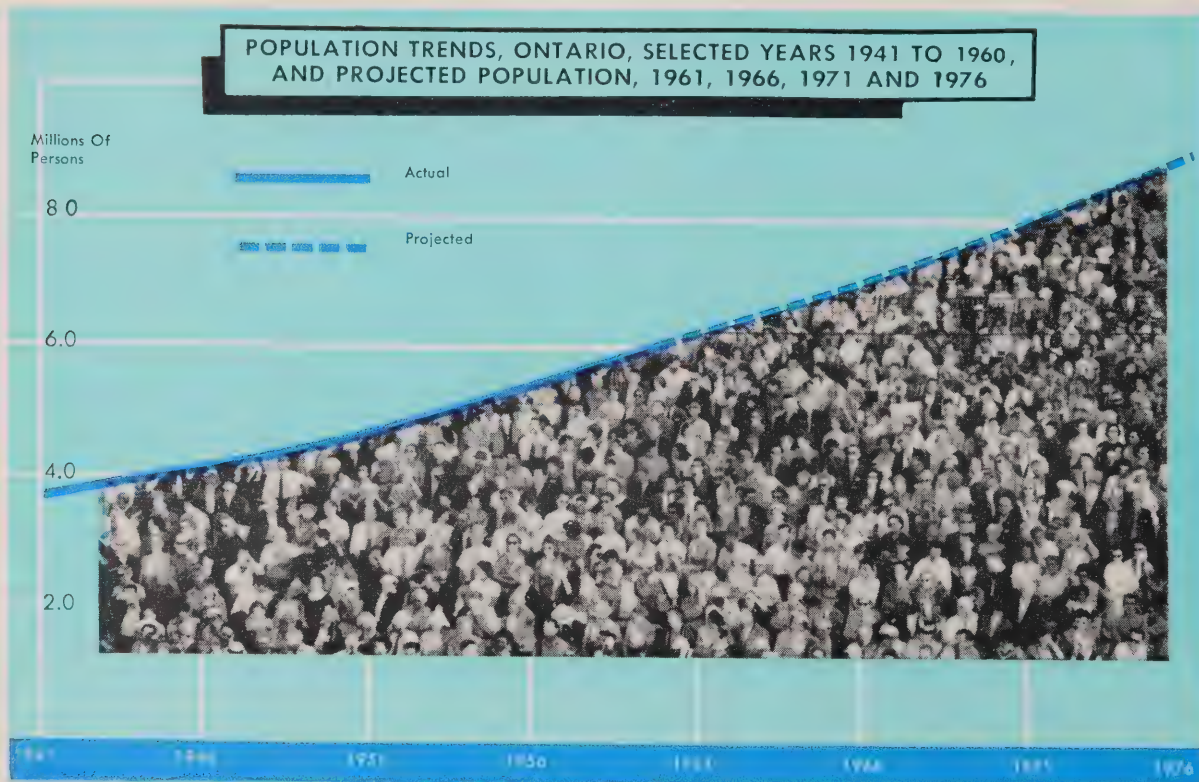
¹Intercensal estimates.

²Population projections made by the Ontario Department of Economics.

decline in death rates, and a high level of immigration. If these assumptions hold true, we can anticipate a Provincial population of about six and a quarter million by 1961, close to seven million by 1966, and nearly nine million by 1976.

Changes in the age composition of the population greatly influence the demand for such public services as elementary and secondary schools, universities and hospitals. On the basis of the assumptions made in this study, the school age groups may constitute an even larger proportion of the total population in 1976 than they now do. In 1960 there were 1,618,000 young people between five and 19 years of age or 26.6 per cent of the Province's population—an increase from 23.5 per cent

in 1946; by 1976 the population in this group will probably have nearly doubled to reach 2,683,000 or about 30 per cent of the total. The number of older persons is expected to show substantial increases during the next 20 years but may constitute a slightly smaller proportion of the total population in 1976 than it does now. However, the proportion of the population in the active working ages is likely to show a significant decline during the next 20 years and the projections estimate that there will be only 49.7 per cent of the population in the 20 to 64 year age groups in 1976 as compared with 53.5 per cent in 1960 and 51 per cent in 1946. These projections are of course tenuous, but they are founded on the best information we have at the present time.



Labour Force, Employment and Earnings

Labour Force

The Ontario labour force reached a total of 2,427,000 at the August 1960 peak, about 69,000 more than at the 1959 peak. As the table below shows the rate of increase in the labour force varies substantially from year-to-year. While the main determinant of the labour force is the number of persons of working age in the population at any time, there is a fairly large pool of prospective workers who move in and out of the work force as circumstances warrant. Thus between 1957 and 1959 there was very little labour force growth because job opportunities were limited. However, even though unemployment continued to rise between 1959 and 1960, there was an exceptionally

ONTARIO LABOUR FORCE GROWTH 1901 TO 1960

June 1	Labour Force At End of Period	Average Annual Rate of Growth
	(000's)	%
1901-1911	991	2.8
1911-1921	1,119	1.2
1921-1931	1,346	1.9
1931-1941	1,455	0.8
1941-1951	1,867	2.5
1951-1956	2,116	2.5
1956-1957	2,227	5.2
1957-1958	2,253	1.2
1958-1959	2,264	0.5
1959-1960	2,379	5.1

large addition to the labour force last year. The increase was largely in the female sector, as job opportunities in the trade and service industries continued to expand; the increase in the male work force was about average or below. Between 1959 and 1960 the Ontario labour force increased by 115,000 or 5.1 per cent as compared with an average annual increment of 2.5 per cent during and since World War II.

There has been a continuing though uneven growth in the labour force in the main working age groups, 25 to 64, since the end of World War II. On the other hand, a general lengthening of the period of formal education has been reflected in a decline in both the proportion and the total numbers of young people 14 to 19 in the labour force since the end of World War II. A smaller proportion of 20 to 24 year-olds is working or seeking work now than in 1946, but there has been a slight increase in the total number of persons in this age group actually in the labour force. The number of persons over 65 in the labour force appears to increase during periods of tight labour supply, and decline when there are sufficient younger workers to fill the demand. There has been very little change in the total over the past dozen years.

A larger proportion of the adult population is working today than was the case in the early part of this century.

LABOUR FORCE BY AGE GROUP AT DATE NEAREST JUNE 1, ONTARIO, 1946 TO 1960

	14-19	20-24	25-44	45-64	65+	Total
	(Thousands of Persons)					
1946	187	227	731	477	89	1,711
1947	185	240	761	484	91	1,761
1948	186	244	777	500	92	1,799
1949	180	254	801	497	94	1,826
1950	167	250	819	508	91	1,835
1951	162	250	847	519	92	1,870
1952	167	246	879	528	92	1,912
1953	158	244	901	550	85	1,938
1954	169	246	945	567	93	2,020
1955	169	243	972	574	89	2,047
1956	163	251	1,005	603	94	2,116
1957	176	260	1,056	639	96	2,227
1958	165	267	1,077	651	93	2,253
1959	166	262	1,080	664	92	2,264
1960	193	272	1,119	702	93	2,376

A slight decline in work force participation of males in the age groups under 24 and over 65 has been more than offset by increased female participation.

The proportion of women over 14 in the work force increased gradually from 17.7 per cent in 1911 to 22.4 per cent in 1941. The wartime manpower shortage necessitated much greater use of women in the working world, with the result that by 1946 more than 27.5 per cent of all women in the civilian non-institutional population were in the work force. Some of these women left the work force immediately after the war but a substantial proportion continued working. From 1947 to 1955, between 26 and 27 per cent of women 14 years of age or over were in the work force. The labour shortages in 1956 and early 1957 again increased the demand for women workers, with the result that by June 1957 more than 30 per cent of women in Ontario were either working or actively seeking work. The total number declined again in the following two years and in June 1959 only 29 per cent of all Ontario women were in the labour force but by June 1960 the total had risen to 31.8 per cent.

LABOUR FORCE, CIVILIAN NON-INSTITUTIONAL POPULATION 14 YEARS OF AGE AND OVER, AND PROPORTION OF CIVILIAN NON-INSTITUTIONAL POPULATION IN THE LABOUR FORCE

		Male			Female		
		Population	Labour Force	Proportion Of Pop. In L.F.	Population	Labour Force	Proportion Of Pop. In L.F.
		(000's)	(000's)	%	(000's)	(000's)	%
1946 June 1	1	1,504	1,286	85.5	1,546	425	27.5
1947 May 31	1	1,557	1,342	86.2	1,573	419	26.6
1948 June 5	1	1,581	1,377	87.1	1,599	422	26.4
1949 June 4	1	1,606	1,392	86.7	1,628	434	26.7
1950 June 3	1	1,628	1,393	85.6	1,661	442	26.6
1951 June 2	1	1,643	1,414	86.1	1,692	456	27.0
1952 May 31	1	1,697	1,452	85.6	1,735	460	26.5
1953 May 16	1	1,737	1,478	85.1	1,772	460	26.0
1954 May 22	1	1,785	1,528	85.6	1,821	492	27.0
1955 May 21	1	1,822	1,540	84.5	1,862	507	27.2
1956 May 19	1	1,858	1,570	84.5	1,900	546	28.7
1957 May 18	1	1,926	1,630	84.6	1,961	597	30.4
1958 May 24	1	1,974	1,669	84.5	2,014	584	29.0
1959 May 16	1	2,005	1,668	83.2	2,053	596	29.0
1960 May 21	1	2,043	1,714	83.9	2,094	665	31.8

Employment

The pattern of employment of the labour force in Ontario has shown some startling changes in the past few years. Employment in the service industries is growing much more rapidly than in other industries. In 1960, more than 54 per cent of all workers in Ontario were employed in the transportation, trade, finance and other service industries; about 30 per cent were engaged in manufacturing; 10 per cent in the primary industries and six per cent in construction. In 1951, on the other hand, the service industries employed only 46 per cent of the total work force, and construction about seven per cent, while manufacturing accounted for nearly 33 per cent and the primary industries 14 per cent. However, all these industries except the primary industries¹ are now employing more people in absolute numbers than they did in 1951.

INDUSTRIAL DISTRIBUTION OF EMPLOYMENT IN ONTARIO,
1931, 1941, 1951 AND 1960

	1931	1941 ¹	1951 ¹	1960 ²
Total Employment (000's)	1,217	1,428	1,868	2,263 ³
Primary Industries % of Total	27.9	22.9	13.8	9.9
Manufacturing % of Total	21.3	31.0	33.0	29.6
Construction % of Total	5.6	5.1	6.8	6.3
Trade, Transportation, Public Utilities, and Other Services % of Total	45.2	41.0	46.4	54.2
Total	100.0	100.0	100.0	100.0

¹Census of Canada.

²Estimated by the Ontario Department of Economics.

³Total reported in the Labour Force Survey, Dominion Bureau of Statistics, for date nearest June 1.

Labour Force Projections

Labour force projections are merely extensions of past trends based on our best judgment of the future as we can see it at the moment. They are, of course, subject to all the frailties and limitations of any forecast. The labour force projections for Ontario, contained in this study, are based on the revised population projections prepared by the Ontario Department of Economics in 1957.

Two projections of the labour force have been made for some groups of the population. These indicate the effect of alternative trends in participation rates. While the trends have been fairly consistent for most age categories of males, there is some doubt as to the direction of future trends in female participation rates. The alternative trends in these rates account for a substantial difference in the two sets of projections, particularly in the long term.

The Ontario labour force increased from just over three-quarters of a million persons at the beginning of the century to 1,887,000 by 1951 and approximately 2,379,000 by 1960. Although labour force trends usually

follow the direction of population trends, other factors such as age and sex distribution of the population, work force participation rates and social customs also affect labour force size. Thus during the first half of the century the labour force grew more rapidly than the population as a whole. From 1901 to 1951 the Ontario labour force increased by 150 per cent, while the population increased by 110 per cent. Since 1951, on the other hand, the population has been increasing more rapidly than the labour force — by 32 per cent from 1951 to 1960, as against approximately 27 per cent.

ONTARIO LABOUR FORCE AS AT JUNE 1, FOR SELECTED YEARS 1911
TO 1960. PROJECTED TO 1976

	Male (000's)	Female (000's)	Total (000's)
1911 ¹	836	155	991
1921 ¹	922	195	1,117
1931 ¹	1,096	249	1,345
1941 ¹	1,272	335	1,608
1951 ¹	1,441	446	1,887
1956 ²	1,570	546	2,116
1957 ²	1,630	597	2,227
1958 ²	1,669	584	2,253
1959 ²	1,668	596	2,264
1960 ²	1,714	665	2,379
Projections ³			
1966.....	1,996-2,017	660-739	2,656-2,756
1971.....	2,206-2,247	742-870	2,948-3,117
1976.....	2,462-2,517	836-1,013	3,298-3,530

¹Census, "gainfully occupied".

²Census, "gainfully occupied", plus new entrants who are seeking work and persons in the armed forces.

³Labour Force Surveys, Dominion Bureau of Statistics.

⁴Prepared by the Ontario Department of Economics.

Young people entering the work force may be on the increase over the next few years as the large number of children born during and since World War II begin to reach working age (15-19). However, the full impact of this group will not be felt until after 1961, when it starts to move into the 20-24 year age group. If present trends in both population and work force participation rates continue, we can expect a labour force of 2,756,000 by 1966 and of about 3½ million by 1976. On the other hand, if participation rates for women and for a few specified male categories should again level off, the work force might reach only about 3,300,000 by 1976.

Effect of Population Growth: Although the growth of the labour force has reflected the rapid post-war increase in Ontario's population, differences in labour force participation rates for men and women and for various age groups have meant that the labour force has not expanded at anything like as rapid a rate as the whole population. From 1941 to 1959, the labour force increased by 41 per cent, while the population climbed by 57 per cent. This is a reflection of the relatively rapid increase in the numbers in the very young age groups and the shrinking proportion of persons in the main labour force age groups 25 to 65. The following table shows the proportion of the

¹Declines in the work force in agriculture, forestry and fishing have more than offset the increase in mining.

population in the major age groups from 1901 to 1960 and projected estimates to 1976.

PROPORTION OF TOTAL POPULATION IN EACH AGE GROUP IN ONTARIO, 1901 TO 1960, PROJECTED TO 1976

	0-14	15-24	25-44	45-64	65+
1901	31.3	20.4	27.7	15.0	5.6
1911	29.3	19.3	29.4	16.3	5.7
1921	30.1	16.9	29.7	17.4	5.9
1931	27.8	17.7	29.0	18.6	6.9
1941	24.2	17.5	29.6	20.6	8.1
1951	27.0	14.6	30.0	19.8	8.6
1956	29.9	13.2	29.7	18.8	8.3
1957	30.5	13.3	29.5	18.5	8.1
1958	31.1	13.5	29.2	18.4	7.9
1959	31.2	13.3	28.9	18.5	8.2
1960	31.6	13.4	28.4	18.6	8.0
Projected					
1966	32.8	15.4	26.0	18.6	7.2
1971	33.8	16.3	24.2	18.8	7.0
1976	34.5	16.6	23.8	18.2	7.0

It would seem from these figures that we might expect a further reduction in the proportion of the total population in the labour force up until about 1976. By the late 1960's and early 1970's, when the big crop of wartime and post-war babies begins raising families, the population will mount quite sharply but a larger proportion of it will be in the non-working, very young age groups.

The effects of the high birth rates have been offset to some extent by record levels of immigration during the past few years. Most immigrants are in the younger working age groups of the population. The following table shows the age distribution of immigrant arrivals for the years 1951 to 1956, as compared with the age distribution of the total population at June 1, 1956. From this we can see that most of the new Canadians come to this country before they reach 45 years of age and a large percentage are between 25 and 45 years old. Moreover, more than half of these new Canadians indicate that they

PERCENTAGE DISTRIBUTION OF IMMIGRANTS AND TOTAL POPULATION IN CANADA

Age Group	Population 1956	Immigrants 1951-1956
	%	%
0-14	30.0	22.0
15-24	13.2	24.8
25-44	29.7	43.7
45-64	18.8	8.4
65+	8.3	1.1
	100.0	100.0

intend to enter the labour market. For this reason, the increase in the labour force has been larger in recent years than was originally anticipated. Labour force growth will continue to be affected by immigration rates and if immigration should be higher than we have anticipated, there will certainly be a much faster labour force growth.

Factors Affecting Labour Force Participation: Not only does the age and sex composition of the population affect the labour force, but social conditions and attitudes also influence the participation rates within each age group. At present there are more young people continuing their

education to secondary school and university level than at any time in the past, and they postpone entry into the labour market. In the last decade and a half, the proportion of young people in the 14 to 19 and the 20 to 24 year age groups in the labour force has been steadily shrinking. This is particularly true in the male sector of the population.

Increased use of pension plans and retirement funds has affected the working status of the older man. Improvements in medicine are also keeping older people alive longer after they have retired. Hence, the proportion of men who continue in the active work force after they pass 65 years of age has declined steadily through the first half of this century. In recent years there has been some social pressure to retain people in jobs so long as they are able to work. Because of the shortages of highly trained workers, many people have postponed retirement for a few years. It is possible, therefore, that there will be an upswing in work participation rates for the age group 65+ instead of a continuing decline. Such a difference in trend could represent a difference in total labour force of 45,000 to 50,000 by 1976.

The greatest change in work force participation has been in the female sector of the population. During the early part of this century, in Canada as in most of the Western World, women took little part in the active work force. The early work was mining, forestry, agriculture, trapping and fishing—jobs requiring too much physical strength to be suitable for women. Moreover, large families kept the women busy at home. Over the past 40 to 50 years, there has, however, been a very steady increase in the proportion of women working. In fact, in 1911 only 15.6 per cent of persons in the labour force were women, while by 1951 this proportion had risen to 23.6 per cent; in 1960 it was 28.0 per cent. We have assumed that the increased introduction of labour-saving devices in the home, and the growing trend toward prepared and pre-cooked foods will continue to make women's work in the home lighter. It is, therefore, likely that more and more women will continue to work after they marry. On this basis, we have projected a continuing increase in female work force participation. If the trends continue upwards, we can foresee that by 1976, women may make up as much as 28.9 per cent of the total labour force.

Several factors are making it possible for women to remain in the labour force. The growing importance of the service industries may be partially responsible. Many of these industries traditionally employ more women than men—as waitresses, stenographers, secretaries, retail store clerks, teachers and nurses. As these services are making up a growing portion of the gross national product and are employing an increasing proportion of our workers, we can expect them to continue to attract more women out of the home and into the working world.

Supplementing this trend is one toward urbanization. There is little opportunity for a woman in a rural area to obtain gainful work outside her home. In most instances, because of larger families, the necessity of boarding farm workers, and the tendency to use more home-grown produce which requires greater preparation in the home, the rural woman is more fully occupied within her home than is the urban woman. Now, more and more of our population are becoming urban dwellers. It is easier for urban women to arrange their domestic affairs so that they can work outside their homes, and it is also easier for them to find suitable work. With the growing concentration of the population in the urban areas, we might expect a continuing increase in the proportion of women in the work force. If we do have this anticipated increase there may be as many as 1,013,000 women in the Ontario labour force by 1976.

On the other hand, certain factors may offset those encouraging greater female work participation. Higher birth rates and larger families are keeping women at home during the main child-bearing years. There has also been a trend toward earlier marriages. These young wives have little work experience before marriage and may find it harder to return to work after their children are grown. Moreover, the mass movement of people to the suburbs makes working more difficult. Most married women, even if their children are at school, do not like to spend too much of their time away from home. They are, therefore, not nearly so interested in working when they are living in a suburban community as when living in the city. If these factors are sufficiently strong to counteract the trend toward increasing work force participation of women there may be little change in the participation rates and the female labour force might not exceed 836,000 by 1976.

Earnings

Average real earnings of Ontario's workers increased by about 30 per cent between 1946 and 1960 to \$2,949 in 1949 dollars or \$3,775 in current dollars. The rise in labour income has not been a continuous phenomenon. Breaks in the general upward movement of real labour income in Ontario were experienced in 1954, 1957, 1958 and 1960. In 1959 the long-term upward trend in real earnings re-commenced with average labour income higher in real terms by \$136.00 than the previous year and \$89.00 more than the 1957 figure. However, real earnings again declined in 1960 to about \$60 below the 1959 total.

It should be noted that the data used to calculate labour income include wages, salaries, living allowances, and employer contributions to pension and insurance funds. The total number of workers is the total of paid workers with jobs and the unemployed. The use of these data has resulted in a downward bias of the average labour

income per paid worker in those years in which Ontario experienced higher than usual levels of unemployment.

LABOUR INCOME PER PAID WORKER IN ONTARIO AND CANADA,
1946 TO 1960

	Labour Income ¹ (Million \$)		Current Dollars Per Paid Worker ²		1949 Dollars ¹ Per Paid Worker	
	Ontario	Canada	Ontario	Canada	Ontario	Canada
1946	2,257	5,487	1,763	1,663	2,275	2,146
1947	2,658	6,399	1,998	1,890	2,356	2,229
1948	3,105	7,414	2,303	2,130	2,374	2,196
1949	3,346	8,000	2,381	2,222	2,381	2,222
1950	3,624	8,629	2,518	2,358	2,447	2,292
1951	4,258	10,104	2,844	2,626	2,501	2,310
1952	4,720	11,218	3,045	2,785	2,614	2,391
1953	5,075	12,125	3,200	2,946	2,771	2,551
1954	5,204	12,452	3,161	2,957	2,720	2,545
1955	5,546	13,223	3,266	3,020	2,806	2,595
1956	6,198	14,890	3,457	3,247	2,927	2,749
1957	6,731	15,996	3,559	3,323	2,920	2,726
1958	6,936	16,434	3,594	3,298	2,873	2,636
1959	7,467 ³	17,717 ³	3,806	3,477	3,009	2,749
1960	7,700 ⁴	18,400 ⁵	3,775	3,327	2,949	2,599

¹D.B.S. Labour Income 1926-1958, Table 6.

²D.B.S. Labour Income 1959.

³Paid Workers including Persons Without Jobs and Seeking Work.

⁴The Consumer Price Index was used as a deflator.

⁵Estimated by the Department of Economics.

Between 1946 and 1960 the Canadian average labour income per paid worker, as expressed in 1949 constant dollars, increased from \$2,146 to \$2,599 per annum, an increase of approximately 21 per cent. The Canadian figures exhibit downward movements in the average income per paid worker in the same years as Ontario and in two additional namely, 1948 and 1949. It may be noted that real labour income per worker in Ontario was six per cent greater in 1946 and 13 per cent greater in 1960 than the Canadian figures for comparable years. Average earnings in Ontario were higher than those in Canada as a whole partially because much of the high wage industry is located in Ontario e.g. automobile manufacturing, primary iron and steel, pulp and paper production, and because there is usually a larger proportion of the Ontario labour force at work than there is in the rest of the country.

The rise in real wages per worker has occurred in spite of a decline in the average hours of work in Ontario from 41.7 hours per week in 1946 to 40.6 per week in 1959. This decline may be attributed to a number of factors. In the early post-war period the downward shift in the average hours worked per week resulted largely from the gradual adoption of a standard 40-hour work week. In recent years the pattern in hours of work may be explained by the general level of economic activity. Short-time results in a decline in average hours per week while overtime in periods of increased activity is reflected in higher average hours worked per week. In 1952 average weekly hours of work dropped below 41 hours per week. Since that time it has fluctuated from year to year between 40.9 in 1952 to a low of 40.0 in 1958.

Earnings of Ontario workers vary substantially in different industries and different areas. The data on average weekly wages and salaries indicate that uranium miners received the highest average weekly wage of \$106.17 in

1959. On the other end of the wage and salary scale, and in the same year, hotel and restaurant workers received the lowest average wages and salaries amounting to \$38.97 per week. It should be pointed out that direct comparisons between average wages in industrial groups can be misleading. Averages in some instances may be more

meaningful if they are used to compare relative wage levels between industries. Caution should be exercised even when comparing average weekly wages and salaries within the same industries because working conditions, employee benefits, climate, and other non-monetary benefits may play an important role in determining real income.

Prices and Trade

PRICES¹

The averages of price indexes for 1960 were rather higher in several instances than those for the previous year. The consumer price index showed an increase of 1.2 per cent, while the indexes of imports and of exports and of non-residential building materials rose between one-half and one and one-half per cent above their 1959 levels. The general wholesale price index registered no change. The index of commodities and services used by farmers advanced by nearly two per cent during 1960, both for all Canada and for Eastern Canada.

Some 1960 levels, however, were below those of the preceding year. During 1960, the index of farm prices of agricultural products fell off for all Canada by 2.4 per cent—although that for Ontario alone advanced slightly. A decline was likewise experienced in the wholesale price index of farm products for the country as a whole. The security price and the residential building materials price indexes also recorded averages for 1960 that were lower than those for 1959, by 6.0 and 0.6 per cent, respectively.

Consumer Prices

The consumer price index indicates movements in prices of a selected "basket" of consumer goods and services. It is compiled for Canada as a whole and for several cities across the nation—including Toronto and Ottawa—although not for each individual province.

¹The Dominion Bureau of Statistics constructs indexes (available mainly for Canada as a whole) to indicate price movements for groups of commodities at both retail and wholesale levels. A price index compounds prices of selected goods and services and is an indicator of the overall movement of the component prices.

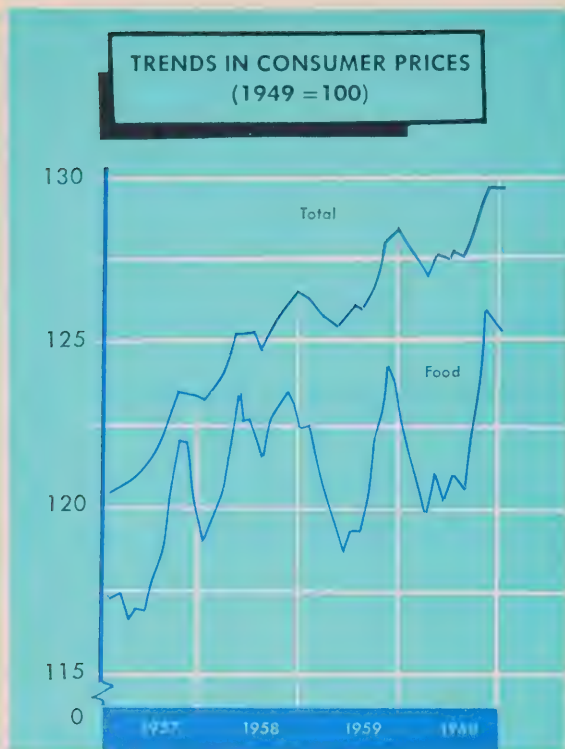
Index components are varied from time to time to keep them representative of current demand and buying patterns. Items that must be included today might have had little or no significance in 1939, as in the case of television sets.

The weighting of indexes is also important. The weight given to an item in an index determines the influence that a price change has on movements of the index. Thus, if one item has ten times the weight of another, the same price change in both items will affect the total index in the ratio of 10:1.

CONSUMER PRICE INDEXES IN CANADA, BY MAIN GROUPS,
SELECTED YEARS 1939 TO 1960

	(1949 = 100)					Other Commodities and Services
	Total	Food	Shelter	Clothing	Household Operation	
1939	63.2	50.2	84.6	54.9	66.5	77.2
1946	77.5	70.0	91.8	69.2	77.2	88.7
1950	102.9	102.6	106.2	99.7	102.4	103.1
1951	113.7	117.0	114.4	109.8	113.1	111.5
1956	118.1	113.4	132.5	108.6	117.1	120.9
1958	125.1	122.1	138.4	109.7	121.0	130.9
1959	126.5	121.1	141.4	109.9	122.7	134.9
1960	128.0	122.2	143.7	110.9	123.3	137.6

In 1960, the consumer price index reached a record high of 128.0. This was about two and one-half times the level for 1913, the first year for which the index is available. During World War I, a sharp rise occurred culminating in a peak of 90.5 in 1920. A substantial decline in the subsequent two years was followed by only minor fluctuations during the rest of the twenties. With the depression, a sharp decrease in consumer prices was reflected by a fall from 75.3 in 1930 to 58.8 in 1933. The next year witnessed the beginnings of recovery in prices, and the index increased almost without interruption throughout the subsequent 20 years. In 1939, the index stood at 63.2, and by 1945 it was 75.0, the larger increases having occurred in the earlier years of World War II. With the removal of price controls after the War, rapid increases in prices were reflected in the index, so that by 1948 it averaged 97.0. The increases for the following two years were much smaller. However, largely as a result of the Korean crisis, the index rose rapidly after 1950 to reach 116.5 in 1952. After a decrease of almost one per cent in 1953, the trend in prices was again upwards, although gradual, so that in 1955 the index was a little below the level of three years earlier. In 1956 and 1957, the average rate of increase in prices of consumer goods and services became progressively larger, and a level of 121.9 was recorded in 1957. Further rises of 2.6 and 1.1 per cent occurred in the subsequent two years. Although these continued the index's upward movement, and caused the annual average for 1959 to record a new high level of 126.5 points, the increases were successively



After this, there ensued an advance—culminating in 1925 at 133.8—and then a decline, the latter becoming strongly marked after 1929. Thus, the depression was reflected in the characteristic fall in prices: in 1932, a level of 86.9, the lowest position of the decline, was only 1.5 points above 1914. After 1932, a gradual advance occurred until 1937, but declines during the next two years brought the index down to an average of 99.2 for 1939.

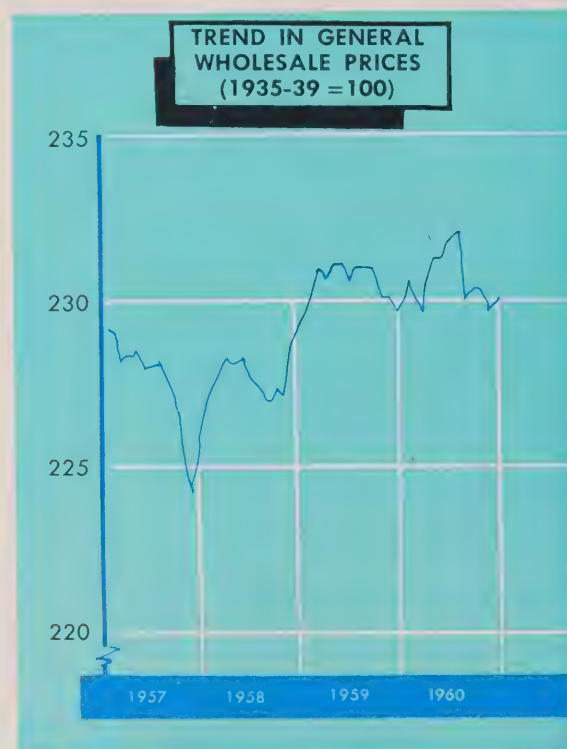
Prices quickly responded to the stimulus of World War II, and there were three substantial annual increases in the years 1940 to 1942, so that the latter year's index was 123.0. The rate of advance was then retarded by the institution of price controls by the Federal Government. The index reached 138.9 in 1946, 40 per cent above that in 1939. Gradual removal of price controls was accompanied by long leaps in the index during the next two years, and in 1948 it stood at 193.4. The increase for 1949 was comparatively small, but the Korean War in 1950 brought greater increases. The index for 1951 stood at 240.2, although towards the end of that year a decline began. Initially, this fall was sharp, the 1952 index standing almost six per cent below the previous year's peak; later the rate of decline lessened, so that in 1954 the index stood at 217.0. The following year witnessed a rise of almost two points and the rate of

smaller. In 1960, the annual average of the index was 128.0, and although this represented a rise of 1.5 points above the previous year, the rate of increase—1.2 per cent—was approximately the same as that in 1959.

Considerable increases in all the components of the consumer price index occurred in the fifties, and the trend in most constituents remains upward. In the case of the food sub-index, however, the annual average for 1959 fell below that of the foregoing year by one point and represented the largest decline in the consumer price index or any of its components for four years. However, this downward trend was reversed during 1960.

General Wholesale Prices

The general wholesale price index, which is constructed on a 1935-39 base-period, is calculated monthly for Canada. In 1960, this index recorded an average level of 230.6 compared with 62.4 at the turn of the century and 99.2 in 1939. During the first two decades of this century, the index advanced considerably and almost without interruption. Increases were particularly pronounced in the later War years, and in 1920 a level of 203.2 was reached. In 1921, the wholesale index experienced the sharpest drop in its history, a fall of 59.8 points, while the next year saw a further drop to 126.8.



increase was further accelerated in 1956 when a level of 225.6 was reached.

In 1957, there was an advance of 1.8 points, followed by one of 0.4 points for the next year. A subsequent rise in the index's rate of increase resulted in an annual average of 230.6 for 1959. On the other hand, the yearly average recorded for 1960 was no higher, but remained unchanged at 230.6.

INDEX NUMBERS OF WHOLESALE PRICES IN CANADA, BY PRINCIPAL COMPONENT GROUPS, SELECTED YEARS 1939 TO 1960

	(1935-39 = 100)			
	General Wholesale Price Index	Vegetable Products	Animals & Products	Fibres, Textiles & Textile Products
1939	99.2	89.1	100.6	98.9
1946	138.9	134.2	160.2	137.9
1950	211.2	202.0	251.3	246.7
1951	240.2	218.6	297.7	295.9
1956	225.6	197.3	227.7	230.2
1958	227.8	198.1	250.7	229.0
1959	230.6	199.5	254.3	228.0
1960	230.6	202.4	247.6	229.6

	Iron & Products	Non-Ferrous Metals & Products	Non-Metallic Minerals & Products	Chemicals & Products
1939	104.8	100.0	99.7	100.3
1946	127.4	108.0	114.5	120.3
1950	183.6	159.5	164.8	157.8
1951	208.7	180.6	169.8	187.3
1956	239.8	199.2	180.8	180.1
1958	252.6	167.3	188.5	183.0
1959	255.7	174.6	186.5	187.0
1960	255.8	177.7	185.2	188.1

Prices of Commodities and Services Used by Farmers

Since 1944, the annual price index of goods and services used by farmers has been compiled by averaging indexes for the months of January, April and August. Indexes are constructed separately for Eastern Canada (Ontario, Quebec and the Maritime Provinces) and Western Canada, and these are combined into an all-Canada index.

The composite price indexes of commodities and services used by farmers approximately tripled between 1914 and 1960. Thus, the Eastern Canada index, exclusive of living cost, rose from 87.4 to 278.2 during that period. Rapid increases in the indexes came in the late years of World War I and the early post-war years. On the other hand, steep declines took place in 1921 and 1922 and again at the beginning of the thirties, so that by 1933, the indexes had fallen to their lowest levels for two decades. Fluctuations then ensued, although the trend was upward, while after the start of World War II, there was an advance which endured until 1953, and which in the case of the index for Eastern Canada, exclusive of living cost, caused a rise of 150 per cent between 1939 and 1952. The two years immediately following this period experienced declines, but the indexes subsequently resumed their climb.

INDEX NUMBERS OF PRICES OF COMMODITIES AND SERVICES USED BY FARMERS IN EASTERN CANADA, SELECTED YEARS 1939 TO 1960

	(1935-39 = 100)				
	Composite Index Exclusive of Living Cost	Composite Index Inclusive of Living Cost	Equipment and Materials	Tax and Interest Rates	Farm Wage Rates
1939	98.7	99.0	94.8	99.2	110.6
1946	160.4	147.1	130.1	100.7	312.8
1950	213.8	198.5	192.5	131.2	360.3
1951	234.6	219.4	206.2	142.0	412.4
1956	251.9	231.9	207.3	178.8	461.4
1958	262.3	243.7	208.6	192.3	497.8
1959	273.3	251.7	215.1	201.3	524.1
1960	278.2	255.5	217.8	201.3	540.6

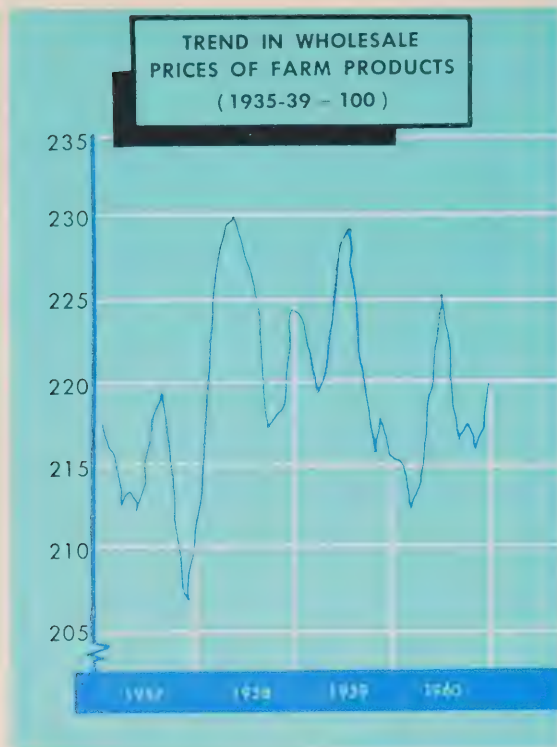
The steady, marked rise of the composite index has been due, in considerable measure, to the rapid ascent of the farm wage rates index. This upsurge of farm wages is partially the result of the sharp decline in unpaid family labour on farms. Since the beginning of World War II, this sub-index has expanded almost five-fold. However, the other components—equipment and materials, tax and interest rates and farm family living costs—were in 1960 roughly only twice as great as in 1939.

In 1957, the prices of all the main groups of commodities and services used by farmers rose above 1956 levels, an upward trend which continued into the years that followed and culminated in a 1960 average of 278.2. However, this index indicates an increase of less than two per cent during the year, compared with more than four per cent during the previous year.

Wholesale Prices of Farm Products

The main purpose of the wholesale price index of farm products is to measure changes in terminal market prices of Canadian farm products. Prices at terminal markets, stockyards and similar points include freight, storage, handling charges and sometimes some degree of processing. The index differs from the index of farm prices of agricultural products in that the latter measures prices at the farm. For the farm products index, the five years 1935-39 were chosen as the base-period, and indexes are computed for both Eastern and Western Canada, as well as for the country as a whole. Also, total indexes in all three instances are broken down into field and animal components.

The Canada and Eastern Canada total indexes experienced declines between 1926 and 1932, both falling to their lowest levels—65.5 and 70.3, respectively—in the latter year. The direction of the indexes throughout the ensuing two decades was markedly upward, and although the advances were interrupted at the end of both the thirties and forties, levels of 268.6 for all Canada and 280.4 for Eastern Canada were recorded in 1951. Subsequent to this, the trends in both indexes were downward until 1958 when increases of over four per cent occurred.



In 1959, the index for Eastern Canada rose somewhat, while that for all Canada decreased a little. This rate of decrease doubled in the following year, so that the 1960 index for Canada stood at 217.5. However, alterations in the figures for the last two years will occur later because indexes after mid-1959 are subject to revision, depending upon announcements of interim and final participation payments by the Canadian Wheat Board.

WHOLESALE PRICE INDEXES OF FARM PRODUCTS, TOTAL, FIELD AND ANIMAL, IN CANADA AND EASTERN CANADA, SELECTED YEARS 1939 TO 1960

	CANADA (1935-39 = 100)			EASTERN CANADA		
	Total	Field	Animal	Total	Field	Animal
1939	92.6	83.7	101.5	98.8	95.2	100.6
1946	179.5	177.9	181.2	171.0	159.6	176.7
1950	236.7	191.9	281.4	238.2	186.7	263.6
1951	268.6	200.4	336.9	280.4	210.0	315.1
1956	214.2	181.6	246.9	228.5	210.1	237.5
1958	222.9	171.4	274.5	234.6	181.3	260.9
1959 ¹	221.2	170.7	271.6	236.8	195.1	257.3
1960	217.5	170.6	264.5	—	—	—

¹Indexes subsequent to July, 1959 are subject to revision when final payments are announced.

Farm Prices of Agricultural Products

Index numbers of farm prices of agricultural products measure changes in prices received by farmers at the farm, these prices being furnished mainly by farm correspondents. Although prices in this index take no

account of freight and similar charges, they do include subsidies and other payments relevant to specific products. The index is based on prices for about 50 farm products which contributed the bulk of cash income received by farmers from the sale of farm products during the base-period, which is 1935-39.

An index of farm prices of agricultural products is constructed for each individual province of Canada, as well as for the whole country. In 1960, the index for Ontario stood at 265.0, while that for all Canada was 239.4, more than two and one-half times their counterparts in 1935. Both indexes rose rapidly from 1935 to 1937, but suffered considerable declines during the next two years. The upward movement resumed with the onset of World War II, and, except for one small decline in 1949, continued uninterrupted until 1951. In that year, the index for all Canada climbed to 296.8, while the Ontario index rose to 315.0. Declines in the indexes, evident in 1952, persisted into 1955, but were superseded by slight rises in the subsequent year. The Ontario index continued to rise at an increasing rate in 1957 and 1958, whereas that for the country as a whole edged down fractionally in 1957, then rose again in 1958. In the following year, for both Canada and the Province, farm prices of agricultural products declined. In 1960, this downward trend continued for all Canada while for Ontario it was reversed, the average annual indexes being 239.4 and 265.0, respectively.

INDEX NUMBERS OF FARM PRICES OF AGRICULTURAL PRODUCTS IN CANADA¹ AND ONTARIO, SELECTED YEARS 1939 TO 1960

	(1935-39 = 100)							
	1939	1946	1950	1951	1956	1958	1959 ²	1960
Canada	91.8	204.1	260.8	296.8	234.6	245.5	245.2	239.4
Ontario	99.2	187.9	265.1	315.0	250.5	266.5	264.2	265.0

¹Excludes Newfoundland.

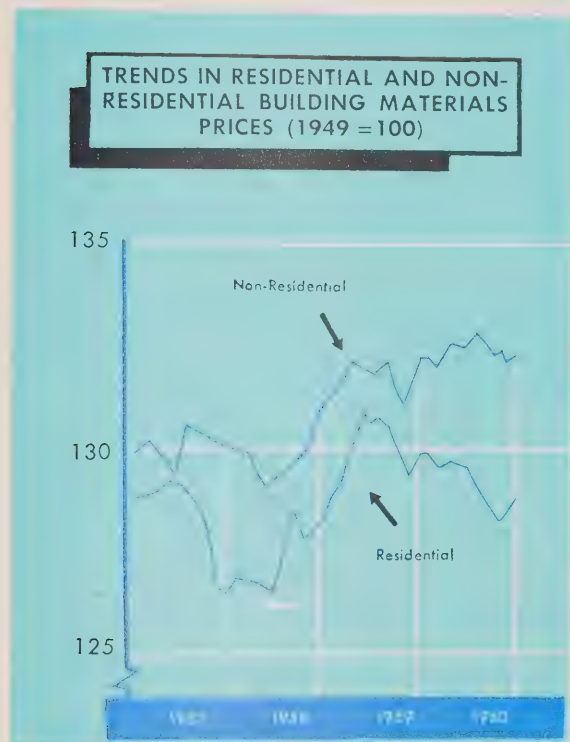
²Indexes subsequent to July, 1959 are subject to revision, when final payments are announced.

Building Materials Prices

Because of the importance of building to Canada's economy, the Dominion Bureau of Statistics designed indexes to measure changing price levels of materials used in this sector. It should be noted that the index for building materials does not include materials used in engineering construction, for example, in power dams, roads and bridges.

The base-period for the price index of materials used in non-residential building construction is 1949. This index rose from an average of 58.0 in 1935, the first year for which it is available, to 132.4 in 1960. Until the end of the thirties, this advance was intermittent. However, from 1940 until the end of World War II, the index rose steadily—but not steeply, because price controls acted as an effective restraint against large price increases. With gradual removal of controls in early post-war years, the

index rose rapidly. This rate of increase moderated before the turn of the decade, but quickened again with the Korean War when the index increased from 105.0 to an annual average of 118.6 in 1951. The index then continued its upward trend at a reduced pace. In 1954, however, after 14 years of unimpeded advance, a two per cent decline occurred, causing the index to register 121.8. Next year, the movement was again upwards, a trend which prevailed until 1958 when a slight edging down of 0.2 points took place. In 1959, most of the components of



the building materials price index experienced a rise, the result of which was that the upward trend of the index was resumed and an annual average of 131.7 points was registered for the year. This trend continued into 1960, the average index for which was 132.4.

PRICE INDEX NUMBERS OF BUILDING MATERIALS IN CANADA, SELECTED YEARS 1939 TO 1960

	Non-Residential	Residential	
	(1949 = 100)	(1935-39 = 100)	(1949 = 100) ¹
1939	60.3	102.3	44.9
1946	75.0	154.5	67.8
1950	105.0	242.7	106.4
1951	118.6	286.2	125.5
1956	128.0	292.9	128.5
1958	129.8	290.2	127.3
1959	131.7	296.3	130.0
1960	132.4	294.5	129.2

Arithmetically converted from a base of 1935-39 = 100 for comparison with price indexes of non-residential building materials.

The residential building materials price index is prepared with a 1935-39 base-period. In 1960, this index averaged 294.5 as compared with 109.6 in 1926, the first year for which it is available. In its early years, the general direction taken by the index was downward until a low of 87.5 occurred in 1932. Intermittent advances and declines followed during the rest of the thirties, and in 1939 the index stood at 102.3. A continuous advance then ensued until a level of 286.2 was recorded in 1951. At the end of that year, a decline commenced and continued until mid-1954. Advances which then occurred carried on into 1956, resulting in an annual average for that year of 292.9. The slight downturn experienced by the index in 1957 gained momentum in the following year, but was reversed in 1959 when an annual average of 296.3 was recorded. The trend during 1960 was again downward, the average for that year being 294.5.

Import and Export Prices

Canada ranks prominently among the world's trading nations, surpassed only by the United States, the United Kingdom and the Federal Republic of Germany. Endowed with a rich supply of natural resources, Canada has become a big exporter of forest, agricultural and mineral products. Moreover, Canada's rapid development, especially during recent years, has been largely responsible for a high level of imports. The price indexes for domestic exports and imports, constructed by the Dominion Bureau of Statistics, use 1948 as a base-year.

PRICE INDEXES OF DOMESTIC EXPORTS, SELECTED YEARS 1939 TO 1960

	(1948 = 100)				
	Total	Agricultural & Animal Products	Fibres & Textiles	Wood Products & Paper	Iron & Steel & Products
1939	45.1	41.5	45.5	41.0	51.3
1946	79.9	84.7	66.1	75.4	82.3
1950	108.3	105.6	112.8	105.0	113.7
1951	123.0	114.8	139.8	122.4	126.2
1956	121.4	95.9	108.7	120.1	143.1
1958	120.6	96.6	108.0	119.3	157.1
1959	122.8	99.8	107.8	120.2	161.7
1960	123.3	99.9	110.6	118.5	162.6

	Non-Ferrous Metals & Products	Non-Metallic Minerals & Products	Chemicals & Fertilizers	Miscellaneous Products
1939	50.1	65.2	76.6	65.9
1946	76.1	77.2	84.2	84.2
1950	115.1	120.4	104.2	112.0
1951	137.9	131.7	116.7	132.3
1956	165.0	156.1	113.9	126.6
1958	143.6	165.3	114.5	128.8
1959	145.6	165.0	114.8	128.9
1960	150.8	165.1	115.3	134.2

The exports price index fell from 70.2 to 39.9 between 1926 and 1933. This downturn was succeeded by a rise which, apart from interruptions in 1938 and 1939, continued unimpeded until 1951, when a level of 123.0 was reached. The index subsequently experienced a fall-off

until 1955, in which year the annual average of 117.7 initiated an upturn once more. Following a further change in direction in 1957, the index recorded a 1958 level of 120.6, after which the upward trend was resumed. Also, the average for 1960, which was 123.3, reflected a slight extension of this advance.

The movements of the imports price index are similar to those of the exports index. Thus, a decline of 37 per cent occurred between 1926 and 1933, and, for the latter year, a level of 43.7 was recorded. The advance which followed was broken temporarily in the middle and late thirties but was otherwise distinctly upwards until 1951 when a summit of 126.2 was reached. In the latter year, the increase of about 14 per cent that occurred was counteracted by a comparable decrease in 1952. After this, minor fluctuations were experienced by the imports price index until 1956 when it rose to 113.0. In the following year, an advance of three per cent occurred and was also maintained by the annual average for 1958, which was 116.5. Although the index dipped to 114.4 in 1959, indications are that an increase will occur in 1960.

PRICE INDEXES OF IMPORTS FOR CONSUMPTION,
SELECTED YEARS 1939 TO 1959

	(1948 = 100)				
	Total	Agricultural & Animal Products	Fibres & Textiles	Wood Products & Paper	Iron & Steel & Products
1939	47.2	37.0	34.6	57.0	62.8
1946	76.5	82.1	70.2	84.4	77.1
1950	110.3	108.2	109.3	111.6	116.1
1951	126.2	122.4	158.6	118.4	122.5
1956	113.0	99.8	89.2	123.8	133.2
1957	116.4	104.0	90.2	126.0	138.1
1958	116.5	100.3	86.6	138.7	143.1
1959	114.4	91.3	82.3	139.7	144.2

	Non-Ferrous Metals & Products	Non-Metallic Minerals & Products	Chemicals & Fertilizers	Miscellaneous Products
1939	60.9	44.5	54.3	61.7
1946	82.5	67.8	83.5	93.2
1950	106.9	104.4	102.8	121.5
1951	121.2	108.8	117.2	166.6
1956	132.8	102.0	111.7	118.3
1957	131.3	108.5	110.9	113.2
1958	132.8	106.5	112.7	106.9
1959	135.1	101.8	110.9	116.3

Stock Price Indexes

Price index numbers of industrial, utility, bank and mining common stocks, and preferred stocks are calculated from Montreal and Toronto exchange quotations. Currently, 93 common stocks are included in the investors' price index of common stock, of which 72 are industrial, 14 are utilities and 7 are banks. In the mining stock price index, 27 stocks are included, and in the preferred stock price index, 27.

Throughout the early years of World War II, stock prices declined. This downward trend was reversed in 1943 when the index began to rise, so that in 1946, it stood at 115.7. Stock prices experienced fluctuations

during the next three years, and in 1949, the total index registered 109.4.

STOCK PRICE INDEXES, SELECTED YEARS 1939 TO 1960

	(1935-39 = 100)				Mining Stock ¹ Price Indexes	Preferred Stock Price Indexes
	Investors' Price Indexes of Common Stock					
	Total	Industrials	Utilities	Banks		
1939	91.6	91.2	86.1	102.5	104.5	101.6
1946	115.7	108.6	132.5	130.0	97.8	155.9
1950	131.6	127.6	132.5	147.4	89.9	156.7
1951	168.3	172.0	162.3	144.6	99.2	164.5
1956	269.0	282.7	206.3	275.8	134.4	166.2
1958	239.4	247.6	189.1	273.2	103.8	160.6
1959	265.4	272.2	197.3	355.8	118.7	157.2
1960	249.6	256.6	189.1	320.0	104.9	152.6

¹Mining Stocks are not included in the Investors' Total for the purposes of this Index.

In 1950, the upward trend recommenced sharply, and except for one interruption in 1953, continued to advance until 1956 when it reached a level of 269.0. In mid-1957, stock prices commenced to fall, thereby reflecting to some extent the concurrent levelling-off in economic activity; the index for that year was four per cent below that for 1956. Moreover, in 1958, the average dipped still further. However, a recovery was initiated towards the end of that year which persisted into 1959 when the index rose to 265.4. The subsequent year witnessed another change of direction in the index, an average of 249.6 being recorded for 1960.

RETAIL TRADE¹

In 1960, sales by Ontario retailers exceeded all previous records with an estimated volume approaching \$6.3 billion—over 38 per cent of the retail trade of all Canada and a much larger share of the nation's total than that of any other province. Moreover, this was a slight increase over the previous year and an increase of over 10 per cent above the 1957 level.

RETAIL TRADE IN CANADA AND ONTARIO,
SELECTED YEARS 1939 TO 1960

	Canada	Ontario	Ontario as % of Canada
	(\$000's)	(\$000's)	
1939	2,577,988	1,038,668	40.3
1946	5,787,377	2,264,542	39.1
1951	10,693,097	4,129,827	38.6
1956	14,297,557	5,498,554	38.5
1958	15,444,341	5,934,446	38.4
1959	16,283,558	6,218,395	38.2
1960	16,413,465	6,258,145	38.1

Consumer spending in Ontario increased persistently and substantially after 1933, when its lowest level—\$735 million—was recorded; and this upward trend culminated in the new high level of 1960. Throughout the last quarter of a century, Ontario's share of the total Canadian retail trade has been both high and steady. It declined slightly after the early forties but has never moved far from around

¹Retail trade data were collected for 1930, 1941 and 1951 as part of the 1931, 1941 and 1951 Censuses, respectively. For other years, intercensal estimates were prepared.

two-fifths. Although Ontario's population is smaller than the combined total for Quebec and British Columbia, it has a retail trade considerably larger than the aggregate of those provinces.

The Dominion Bureau of Statistics, in its analysis of retail trade, classifies 19 main groups of stores. In Ontario, several of these outlets showed increases in 1960 compared with 1959 sales. Grocery and combination stores accounted for an estimated total of more than \$1.3 billion in 1960. This group has consistently received the largest

portion of retail spending in the Province, and for each year since 1953, these sales have accounted for approximately 20 per cent of the total. Expenditure through these retail outlets rose by almost 5 per cent over the previous all-time high level of 1959. Following grocery and combination stores in the volume of retail trade for 1960 were motor vehicle dealers, who transacted over 15 per cent of the Province's total retailing business. The trade of this group accounted for almost \$950 million and was responsible for over 36 per cent of all motor vehicle sales in Canada. Retailing by department stores approached the half billion dollar mark, an increase of more than 2 per cent above the previous year and over one-third of all departmental store sales throughout Canada. Enjoying an increase of more than six per cent over the previous year, other food and beverage stores aggregated sales of more than \$506 million.

Ontario's garages and filling stations are estimated to have done business to the value of some \$462 million—a slight fall-off from 1959. Other sectors, such as furniture, appliance and radio dealers and fuel dealers also recorded lower annual levels than in the foregoing year. However, the general movement of retail trade in 1960 was one of continued advance.

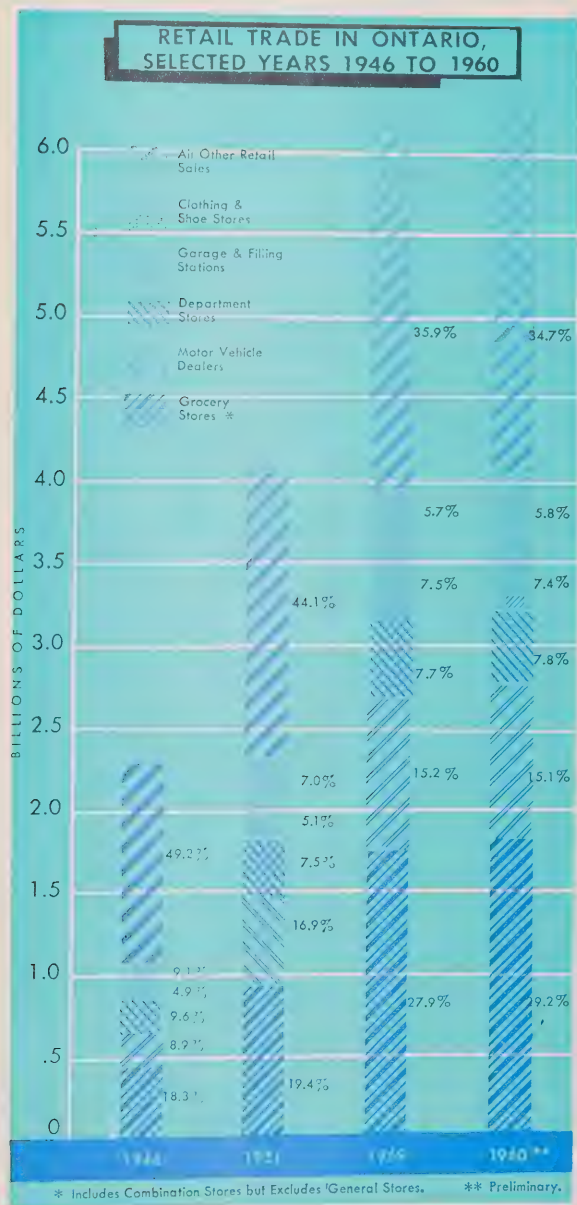
RETAIL TRADE, MAJOR GROUPS OF STORES IN ONTARIO, 1958 TO 1960

Group	1958		1959		1960 (Prel.)		
	(\$'000's)	% of Total	(\$'000's)	% of Total	(\$'000's)	% of Total	% Change 1960/1959
Grocery & Combination Stores	1,230,673	20.7	1,260,069	20.3	1,321,352	21.1	4.9
Motor Vehicle Dealers	871,339	14.7	944,426	15.2	947,414	15.1	0.3
Other Foods & Beverages	454,228	7.6	477,023	7.7	506,023	8.1	6.1
Department Stores	449,128	7.6	480,428	7.7	491,430	7.9	2.3
Garages & Filling Stations	442,908	7.5	464,468	7.5	461,910	7.4	-0.6
Clothing & Shoe Stores	344,428	5.8	357,260	5.7	360,576	5.8	0.9
Restaurants	218,352	3.7	231,481	3.7	224,893	3.6	-2.8
Furniture, Appliance & Radio Dealers	219,236	3.7	219,975	3.5	208,538	3.3	-5.2
Fuel Dealers	172,199	2.9	178,541	2.9	169,052	2.7	-5.8
All Other Retail Groups	1,531,955	25.8	1,604,724	25.8	1,566,957	25.0	-2.4
Total	5,934,446	100.0	6,218,395	100.0	6,258,145	100.0	0.6

A growing trend in the retail trade field of late years has been the movement toward super shopping centres. This has been associated particularly with the lateral expansion of urban communities into hitherto rural and semi-rural areas. The suburban super markets have a great advantage over downtown stores in that they offer extensive parking facilities—a boon to the shopper.

GROCERY AND COMBINATION STORE SALES IN ONTARIO, BY TYPE OF STORE, SELECTED YEARS 1953 TO 1960

	Total	Independent	Chain	Chain as % of Total
	(Millions of Dollars)			
1953	816	399	417	51.1
1955	944	429	515	54.6
1958	1,231	502	729	59.2
1959	1,285	513	772	60.1
1960	1,321	522	799	60.5



Another phenomenon in retailing, particularly in the sector represented by the grocery and combination stores, is the concentration of sales into fewer and larger stores, in most cases operated by some large chains as opposed to independent merchants.

Although there is an element that prefers to deal with small stores, the benefits and conveniences which the newer giant establishments confer in terms of depth and variety of merchandising have evoked a very substantial response. The one significant challenge which to some extent impedes the smooth functioning of these large stores is the "cash out" problem which at peak week-end shopping periods manifests itself in line-ups to pay for goods purchased. However, the advantages of concentrating all types of merchandise in one centre, have generally been well received, and have led to a distinctive change in the pattern of retail trade which promises to develop further in the future.

WHOLESALE TRADE

In 1960, the volume of wholesale trade in Ontario approached an estimated \$6.7 billion. This represents an increase of more than 50 per cent above the level attained in 1951, when, according to the Census of Canada, the Province's various wholesale establishments—which exceeded 6,500—carried on a trade amounting to almost \$4.4 billion.

The sphere of wholesale trade is composed of many specialized sectors. Of the categories of wholesale trade establishments used in the 1951 Census, that with the largest volume of trade is the wholesalers proper. The components of this group have one common characteristic—they buy and sell on their own account, and they accounted for more than \$1.9 billion in 1951, nearly 45 per cent of Ontario's total wholesale trade. By 1960, the volume of wholesale trade of this group had risen to an



Courtesy—The Hydro-Electric Power Commission of Ontario.

Aerial view of a portion of the re-located community of Morrisburg, showing the modern shopping centre (foreground) and part of the residential section.

estimated \$3.0 billion, an increase of greater than one billion dollars over the nine years.

**TRADE OF WHOLESALERS PROPER IN CANADA AND ONTARIO,
SELECTED YEARS 1941 TO 1960**

	Canada	Ontario
	(\$000's)	(\$000's)
1941	2,358,475	817,787
1951	5,492,741	1,955,327
1956 (Est.)	7,484,600 ¹	2,664,400 ²
1958 (Est.)	7,643,500 ¹	2,721,000 ²
1959 (Est.)	8,255,700 ²	2,938,900 ²
1960 (Est.)	8,386,600 ²	2,985,600 ²

¹These final estimates take account of firms entering and leaving the various wholesale trades during these years.

²Preliminary estimate.

³Estimated on the basis of the ratio of the sales of the wholesalers proper in Ontario to those in Canada, as indicated by the 1951 Census.

Along with wholesalers proper, other wholesale organizations are also recognized in the Census. Manufacturers' sales branches and offices constitute a group characterized by the feature that they are owned and operated by manufacturing firms. The agents and brokers, on the other hand, sell products owned by others on a commission basis, and thereby form a third classification of wholesale traders. Yet a fourth group is distinguished, the assemblers of primary products, who purchase direct the products of the primary agricultural, forestry, fishing and trapping industries for subsequent marketing, either on their own account or on a commission basis. The petroleum bulk tank stations comprise a group, the component establishments of which are usually storage tanks,

generally located at railway sidings, from which petroleum products, mainly gasoline and oil, are distributed in bulk quantities. Lastly, a residual group is taken into account which accommodates business establishments that cannot be assigned to any of the foregoing classifications. It includes, for example, distributing warehouses which combine the functions of storage and distribution of merchandise.

Canada's first complete census of wholesale trade was taken for 1930 in connection with the 1931 Census, when the volume of Ontario's wholesale sales stood a little above \$1.0 billion. Complete wholesale censuses were also taken for 1941 and 1951 as part of the Censuses of those years, and there was an increase of approximately \$2.6 billion in Ontario's wholesale trade during that decade.

**WHOLESALE TRADE IN CANADA AND ONTARIO, SELECTED YEARS
1941 TO 1960**

	Canada	Ontario
	(\$000's)	(\$000's)
1941	5,290,751	1,744,664
1951	14,401,037	4,383,535
1956 (Est.)	19,623,400 ¹	5,973,200 ²
1958 (Est.)	20,040,000 ¹	6,100,000 ²
1959 (Est.)	21,645,000 ¹	6,588,500 ²
1960 (Est.)	21,989,500 ¹	6,693,200 ²

¹Estimated on the basis of the ratio of the sales of the wholesalers proper to all wholesale trade sales, as indicated by the 1951 Census.

²Estimated on the basis of the ratio of wholesale trade sales in Ontario to those in Canada, as indicated by the 1951 Census.



Courtesy—The Ontario Food Terminal Board.

Aerial view of the Ontario Food Terminal on the Queensway in Metropolitan Toronto. The farmers' market section is in the foreground and the railway track is at the right. The Terminal is equipped with wholesale produce warehouses and a cold storage plant. Some 400,000 tons of fruits and vegetables, domestic and imported, are wholesaled here annually.

National Accounts, Income and Expenditure

General Review

Although Canada's Gross National Product in 1960 established a new high, estimated at some \$35.9 billion, the annual rate of increase—about three per cent—was substantially less than that in the previous year. If allowance is made for the rise in prices during the past year, the actual gain in real or physical terms amounted to about two per cent as against nearly four per cent in 1959. As detailed National Account's data for 1960 were not available at the time of writing, the following analysis deals largely with events in recent years up to and including 1959. However, where possible, some estimates for 1960 have been made by the Ontario Department of Economics and are incorporated into the material.

The increase in output during 1959 was characterized by extensive shifts in the make-up of both the nation's income and expenditure patterns. Much of the impetus in the production upsurge of 1959 was occasioned by a build-up of inventories and a reversal of the down-trend in investments for plant and equipment during the year.

The flow of income to the private and public sectors in 1959 reflected variations in the trends of some major income components and changes in the relative importance of income aggregates. In 1959, national income rose to nearly \$26.3 billion, more than six per cent higher than the previous year's level. Corporation profits before taxes¹ climbed to over \$2.8 billion—a rise of 14 per cent from the previous year compared with a decline of nearly three per cent in 1958. Transfer payments, which increased by 27 per cent in 1958, rose slightly again in 1959 and while they made a much smaller contribution to personal income gains, still totalled over seven per cent of total personal income. In contrast, labour income, which registered only a small increase of some three per cent in 1958, recorded a sharp rise of eight per cent in 1959 and accounted for a much greater share of the increase in personal income than in the previous year. However, the net income of non-farm unincorporated business experienced only a nominal increase over the 1958 level, while that of farm operators from farm production declined by seven per cent. In brief, due to the substantial increases in both corporation profits and labour income, and the easing in the growth of transfer payments, national income and personal income expanded in 1959 at about the same rate. This was in sharp contrast to the situation in 1958 when national income, reflecting the small rise in labour income and the fall in corporation profits, increased by only three per cent, while personal income—largely as a result of the sharp upswing in transfer payments—rose by six per cent.

As a direct result of the general improvement in

economic activity, tax revenues rose substantially in 1959. Higher tax yields resulted from the improvement in profits, higher employment and earnings, a rising volume of imports and shipments as well as higher tax rates.

Although Canadian personal income in 1959 established a high level of \$25.9 billion, the increase in personal expenditure virtually matched the growth in personal disposable income so that the level of personal net saving was almost unchanged at \$1.6 billion. This contrasted sharply with the jump in personal saving experienced in 1958. In 1960, personal income in Canada continued to rise, although at a slower annual rate, and recorded a new high, estimated at \$27.4 billion. Personal disposable income also increased to a new level of about \$25.1 billion.

The expenditure pattern of the nation's accounts in 1959 revealed well-defined changes. The level of business capital formation was almost unchanged from that in 1958 but significant changes did occur among the components. The value of non-residential construction dropped by about eight per cent. Most of this decline was attributable to the engineering works group, which reflected a lack of major new projects to replace some of the huge construction ventures recently completed, such as the trans-Canada natural gas pipeline and the St. Lawrence Seaway development. In addition, there was a substantial fall-off in expenditures for construction by manufacturing industries. On the other hand, capital outlays for machinery and equipment surged upward by more than nine per cent. The value of residential construction, however, was somewhat lower than in 1958. Reduced housing activity was partially due to the shortage of mortgage money as well as higher interest rates, although this situation improved during the latter part of 1959 with the provision of additional mortgage funds by the Federal Government through the Central Mortgage and Housing Corporation.

One of the most important increases in expenditures was registered in larger business inventories. Inventories increased in 1959 by about \$355 million, in contrast to 1958 when a decline of some \$323 million occurred. This turnabout of nearly \$700 million was a major factor in economic recovery and accounted for close to one-third of the \$2 billion increase in Gross National Product for 1959. Approximately 60 per cent of the change in the position of business inventories was in manufacturing.

Spending for imported goods and services climbed sharply by more than nine per cent to \$8.1 billion. The increases were well distributed and covered those items needed to support higher production and to replenish inventories, such as industrial and farm machinery, industrial materials and consumer goods. Expenditures on service account items—interest and dividend payments, freight and shipping charges and tourist outlays—were also higher.

¹Excludes dividends paid to non-residents.

Gross business investment in 1959 amounted to \$7.0 billion, about the same level as a year earlier, while gross national saving rose by nine per cent, from \$5.4 billion in 1958 to \$5.9 billion in 1959—the first gain since 1956. As in the past, the amount of domestic saving available was insufficient to support the capital investment program. This deficit or short-fall in the nation's saving of \$1.4 billion—over one-third greater than in 1958—was covered by net foreign investment.

Expressed another way, the \$1.4 billion short-fall represented our deficit on current international account and reflected the fact that although exports were five per cent above the levels in 1957 and 1958, they were still overshadowed by imports. The percentage gain was about the same for merchandise exports as for invisible items. Of merchandise exports, primary commodities such as iron and its products, lumber, pulp and paper, uranium, nickel and copper were of major importance in boosting export levels. With respect to invisible items, returns from the tourist trade, freight and shipping, miscellaneous services, and interest and dividends all exceeded their respective levels in 1958; export of gold, however, was lower. In all, receipts from services amounted to \$1.5 billion compared with \$1.4 billion in 1958.

Personal expenditure on goods and services amounted to nearly \$22.3 billion in 1959 and accounted for 64 per cent of the Gross National Expenditure. Most of the six per cent increase in personal expenditure represented a gain in real consumption and, on a per capita basis, registered the first volume increase since 1956. Government expenditure on goods and services showed a moderate rise of five per cent to \$6.4 billion.

Personal income in Ontario—about 41 per cent of that for all Canada—established a new high in 1960 estimated at \$10.9 billion, a gain of about three and one-half per cent over the \$10.5 billion in 1959 and nearly three times the \$3.7 billion in 1946. Detailed data indicate that new high levels were achieved by the main components of personal income in 1959. Labour income climbed to nearly \$7.5 billion (estimated at \$7.7 billion for 1960), an increase of eight per cent over 1958, while interest and dividends amounted to \$1,067 million—nine per cent more than the previous year. In 1960, Ontario's personal income per capita, estimated at \$1,790, was the highest on record and compared with about \$1,540 for Canada as a whole. In 1959, the figures were \$1,767 and \$1,487, respectively.

Personal disposable income (personal income less personal direct taxes) of Ontario residents climbed to about \$9,850 million in 1960. This represented an increase of more than three per cent over the level in 1959, and was a gain of more than \$830 million over the past two years.

Gross National Product and National Income

The new high level for Gross National Product in 1960, estimated at \$35.9 billion, was more than three times the level in 1946 and substantially more than six times the \$5.6 billion in 1939. When allowance is made for price change, the annual rate of real increase amounted to about two per cent in 1960 compared with nearly four per cent in 1959, virtually no change in each of the two preceding years, a gain of nine per cent in each of the years 1955 and 1956, and an annual average increase of four per cent during the post-war period.

In per capita terms, the G.N.P. amounted to \$1,983 in 1959, compared with \$1,913 in the preceding year and \$964 at the commencement of the post-war period. The national income of \$26.3 billion was \$1,579 million higher than in 1958 and represented \$1,507 for every man, woman and child in the nation. A detailed breakdown of national income and Gross National Product



showing revised figures for selected years since 1926 is contained in the Statistical Appendix attached to Part II of this volume. These data are available only on a national basis.

GROSS NATIONAL PRODUCT AND NATIONAL INCOME IN CANADA, SELECTED YEARS 1939 TO 1959

	Gross National Product		National Income	
	Total (\$ Million)	Per Capita \$	Total (\$ Million)	Per Capita \$
1939	5,636	500	4,236	376
1946	11,850	964	9,551	777
1951	21,170	1,511	16,588	1,184
1953	25,020	1,685	19,294	1,300
1956	30,585	1,902	23,166	1,441
1957	31,773	1,915	23,860	1,438
1958	32,606	1,913	24,702	1,449
1959	34,593	1,983	26,281	1,507

Gross National Expenditure in Canada

In 1959, as in the past, personal expenditure on consumer goods and services of \$22.3 billion formed the bulk (64.4%) of a Gross National Expenditure aggregating \$34.6 billion. Gross business investment, \$6,961 million, represented 20 per cent of the total, while government outlays on goods and services of \$6.4 billion, made up another 19 per cent. The net import of goods and services—treated as an off-setting item in computing aggregate national expenditure—amounted to \$1.4 billion, an increase of 36 per cent from the \$1.0 billion in 1958. Of this deficit, \$1.0 billion was on service account, while the balance of some \$400 million was on merchandise account.

Personal expenditure on consumer goods and services was about six per cent higher in 1959 than in 1958. Although consumer prices continued to rise, the rate of increase moderated so that new volume in this expenditure category amounted to about four per cent. As the increase in real consumption exceeded the growth in population, real consumption per capita registered the first improvement since 1956.

GROSS NATIONAL EXPENDITURE BY MAJOR COMPONENTS IN CANADA, SELECTED YEARS 1939 TO 1959

	Personal Expenditure on Consumer Goods & Services	Government Expenditure on Goods & Services	Gross Business Investment	Gross National Expenditure at Market Prices	
				Current Dollars	Constant (1949) Dollars
				(Millions of Dollars)	
1939	3,984	683	592	5,636	9,536
1946	8,031	1,797	1,388	11,850	15,251
1951	13,460	3,271	3,959	21,170	18,547
1953	15,592	4,432	4,998	25,020	20,794
1956	18,833	5,386	6,774	30,585	23,811
1957	19,964	5,738	7,335	31,773	23,749
1958	21,035	6,161	6,975	32,606	23,933
1959	22,261	6,437	6,961	34,593	24,763

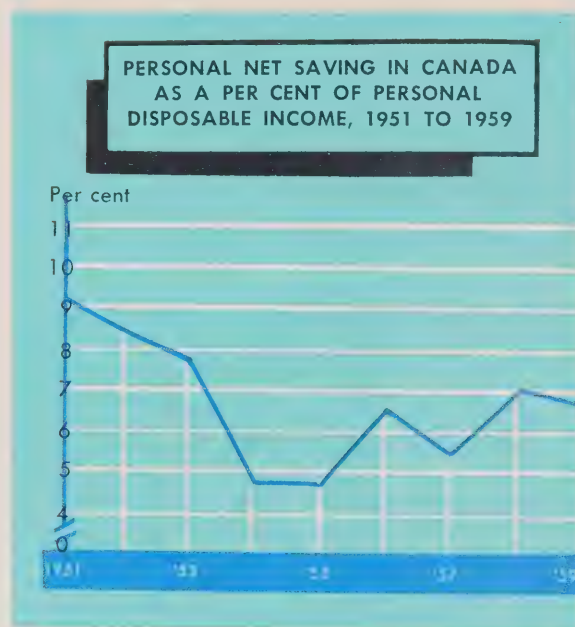
Personal Income and Saving in Canada and Ontario

Personal income in Canada for 1959 amounted to over \$25.9 billion,* a gain of \$1.5 billion or six per cent over the previous year's level. As both corporation profits and labour income made notable gains while the growth in transfer payments fell off, personal income and national

*Estimated at \$26.9 billion for 1960.

income expanded at the same rate. The gain in personal expenditure during 1959 virtually matched the growth in personal disposable income. Consequently, the level of personal saving at \$1,591 million registered little change from that in 1958. The proportion of disposable income set aside in the form of personal savings rose from 5.4 per cent in 1957 to 7.1 per cent in 1958 and then eased to 6.7 per cent in 1959.

Gross national saving rose from \$5.4 billion in 1958 to \$5.9 billion in 1959—an increase of nine per cent. Nearly all the domestic components aided the improvement



in national saving. Business saving rose by over six per cent to \$5.1 billion, personal saving declined by about one per cent, while the deficit in the government sector contracted by over 40 per cent, from \$1.0 billion to \$0.6 billion¹. Total national saving in 1959 represented 17.0

NATIONAL SAVING BY SOURCE, SELECTED YEARS 1951 TO 1959

	1951	1953	1957	1958	1959
	(Millions of Dollars)				
Personal Net Saving.....	1,334	1,312	1,143	1,611	1,591
Business Gross Saving:					
(1) Undistributed Corporation Profits.....	662	729	870	852	957
(2) Capital Consumption Allowances and Miscellaneous Valuation Adjustments.....	2,203	2,673	3,994	3,923	4,131
(3) Adjustment on Grain Transactions.....	-12	-24	-6	-4	-8
Inventory Valuation Adjustment.....	-643	-11	-71	-33	-120
Government Surplus (+) or Deficit (-).....	985	175	70	-1,037	-617
Residual Error of Estimate.....	-90	142	71	98	-39
Total.....	4,439	4,996	6,071	5,410	5,895

¹These figures are based on definitions contained in the National Accounts and accordingly, differ from the budgetary figures recorded in the various public accounts.

per cent of the Gross National Product, compared with 16.6 per cent in the previous year.

The country's aggregate investment in plant, equipment, housing and inventories in 1959 was considerably above the level of the previous year. This increase was due entirely to a change in the position of inventories which moved from a situation of net liquidation to one of accumulation in 1959 (from -\$435 million to +\$300 million). Business gross fixed capital formation at close to \$7.0 billion remained virtually unchanged from the 1958 level. The short-fall as between total national saving and total investment requirements—some \$1.4 billion compared with \$1.0 billion in 1958—was met, as in the past, by net inflows of capital from foreign sources.

Personal income in Ontario for 1960 rose by some three and one-half per cent to an all-time high estimated at \$10.9 billion. This compared with \$10.5 billion in 1959 and was nearly three times the 1946 level and more than six times the \$1,751 million in 1939. The continued advance in personal income reflects the gains in labour

income as well as increases in both government transfer payments and investment income.

Ontario accounts for close to 41 per cent of total Canadian personal income, Quebec's share amounts to about 25 per cent, the Prairie Provinces, 17 per cent, British Columbia, 11 per cent, and the Atlantic Provinces, 7 per cent. As noted elsewhere, Ontario's estimated personal income per capita in 1960 of \$1,790 surpassed all previous records and compared with \$1,540 for Canada as a whole.

PERSONAL INCOME PER CAPITA BY PROVINCES,
SELECTED YEARS 1939 TO 1959

	1939	1946	1951	1953	1956	1957	1958	1959
	\$	\$	\$	\$	\$	\$	\$	\$
Newfoundland.....	n.a.	n.a.	568	632	749	779	820	842
Prince Edward Island.....	202	457	612	653	788	788	850	912
Nova Scotia.....	289	678	776	891	971	1,029	1,059	1,116
New Brunswick.....	248	594	742	777	895	897	924	968
Quebec.....	336	645	928	1,047	1,149	1,202	1,229	1,268
Ontario.....	472	913	1,325	1,459	1,594	1,658	1,695	1,767
Manitoba.....	344	817	1,135	1,166	1,325	1,306	1,439	1,488
Saskatchewan.....	294	770	1,329	1,319	1,392	1,146	1,282	1,309
Alberta.....	333	854	1,308	1,357	1,456	1,415	1,535	1,574
British Columbia.....	475	898	1,346	1,478	1,667	1,681	1,663	1,729
Yukon and N.W.T.....	n.a.	n.a.	840	960	1,387	1,258	1,091	1,088
Canada.....	381	791	1,130	1,235	1,361	1,388	1,434	1,487

n.a. Not available.

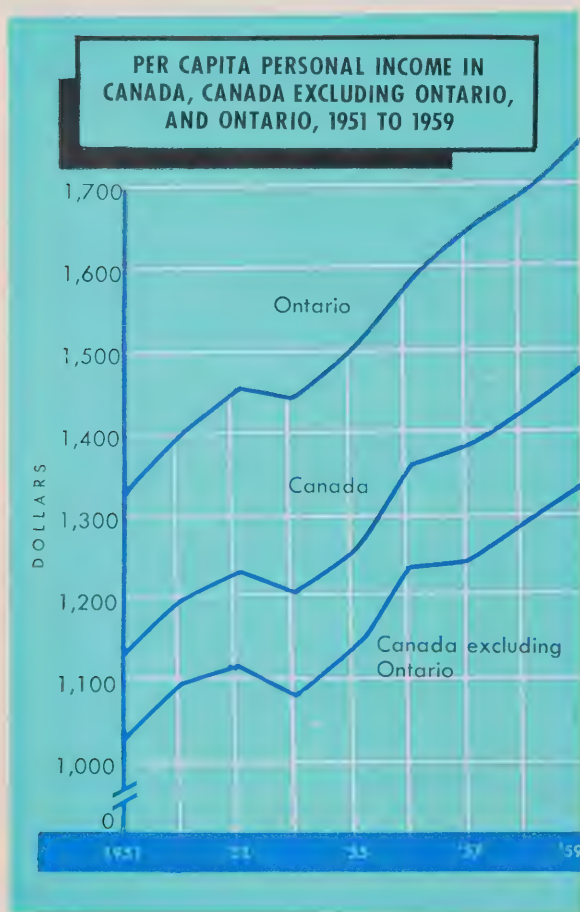
¹Includes Yukon and Northwest Territories.

Wages, salaries and supplementary labour income—the most important component of personal income—amounted to about \$7.5 billion in 1959 and accounted for 71 per cent of Ontario's total personal income.* This compared with \$1,067 million, or 10 per cent, for interest and dividends, \$815 million, or eight per cent, for net income of non-farm unincorporated business, and \$915 million, or nine per cent, for government transfer payments. During the past three decades, labour income has increased steadily in relative importance, while the proportion of the total represented by other leading sectors has declined substantially.

PERSONAL INCOME IN ONTARIO BY MAJOR COMPONENTS,
SELECTED YEARS 1939 TO 1959

	Wages, Salaries and Supplementary Labour Income	Net Income of Non-Farm Unincorporated Business	Interest, Dividends and Net Rental Income	Government Transfer Payments (excl. int.)	Total Personal Income
	(Millions of Dollars)				
1939	1,103	182	273	78	1,751
%	(63.0)	(10.4)	(15.6)	(4.5)	
1946	2,257	403	345	375	3,738
%	(60.4)	(10.8)	(9.2)	(10.0)	
1951	4,258	574	554	306	6,093
%	(69.9)	(9.4)	(9.1)	(5.0)	
1953	5,066	653	663	464	7,209
%	(70.3)	(9.1)	(9.2)	(6.4)	
1956	6,198	736	850	549	8,617
%	(71.9)	(8.5)	(9.5)	(6.4)	
1957	6,731	749	906	651	9,322
%	(72.2)	(8.0)	(9.7)	(7.0)	
1958	6,936	802	980	794	9,837
%	(70.5)	(8.2)	(10.0)	(8.1)	
1959	7,467	815	1,067	915	10,520
%	(71.0)	(7.7)	(10.1)	(8.7)	

*Labour income for the Province in 1960 amounted to an estimated \$7.7 billion and continued to account for 71 per cent of total personal income.



Personal Disposable Income in Ontario

Personal disposable income (total personal income less direct taxes collected by all levels of government) of Ontario's people amounted to over \$9.5 billion in 1959, an increase of six per cent over the previous year and 69 per cent higher than in 1951. Even when allowance is made for price changes since 1951, as measured by the consumer price index, personal disposable income has still increased in "real" terms by 52 per cent. Although the Province's birth rate has established progressively higher levels throughout the post-war period, personal disposable income in per capita terms has continued to increase from \$1,222 in 1951, to \$1,494 in 1957, to \$1,599

in 1959 and \$1,618 in 1960. Real per capita disposable income in 1959 stood at \$1,264—\$189 or 18 per cent above the \$1,075 in 1951.

PERSONAL DISPOSABLE INCOME IN ONTARIO,
CURRENT AND CONSTANT DOLLARS,
SELECTED YEARS 1951 TO 1959

	Current Dollars		Constant (1949) Dollars	
	Total	Per Capita	Total	Per Capita
	(\$ Million)	\$	(\$ Million)	\$
1951	5,621	1,222	4,944	1,075
1953	6,550	1,326	5,671	1,148
1956	7,774	1,438	6,583	1,218
1957	8,402	1,494	6,893	1,226
1958	9,013	1,553	7,205	1,242
1959	9,518	1,599	7,524	1,264

¹Personal disposable income deflated by the consumer price index.

Capital Investment

General Review

Capital investment is one of the chief determinants of economic growth and a reflection of economic activity. It is often a response to new technology and represents not only the acquisition of new plant and equipment, housing, highways and private and public assets of all kinds, but also the replacement and maintenance of capital assets. As a result of several factors, including the irregular development of new products and methods, changes in tastes and needs, and the psychology of investors, capital investment tends to fluctuate more than most economic aggregates.

Since the war, Canada has enjoyed an unprecedented rate of economic growth. Not only have known resources been more thoroughly utilized, but new deposits of metals, oil and gas have been discovered and developed. Rapid growth in population and income has stimulated the expansion of the manufacturing and service industries. Huge investments have been made by all levels of government in a wide range of public capital. These have been required to overtake the backlog of need accumulated before 1945, and to meet the exigencies of rapid growth as well as the higher standards and broader services demanded since that time.

During recent years, Canada's new capital and repair investment has accounted for more than 30 per cent of the Gross National Product. This is an exceptionally high rate and with it have been associated rising levels of production, income and consumption. For the past decade, new capital investment alone has remained well above 20 per cent of the G.N.P. In 1960, new capital and repair investment was about 31 per cent, and new capital

investment about 23 per cent of the Gross National Product.¹

Of great significance is the role which foreign investment has played in developing Canada's primary and secondary industries. Without the assistance of foreign capital, especially from the United States, this country could not have enjoyed the past decade's high rate of industrial growth. During the period 1950 to 1955, up to 25 per cent of our gross capital formation resulted from direct foreign financing, and during the years 1956-58 inclusive, it rose even higher to 32 per cent. The greater part of this investment was in resource-development and associated industries.

Since 1955, new capital expenditures have undergone significant changes. During the years 1955 and 1956, world demand for the products of Canada's resource-based industries advanced considerably and served to stimulate large-scale investment programs within these industries. Capital expenditures in 1957 were, in part, a continuation of this expansion program and, in many cases, reached a peak in that year. In addition, a strong demand continued for such facilities as stores, hotels, office buildings, institutions and municipal improvements, so that by the end of the year, total capital expenditures for all Canadian business, institutions, government and house builders amounted to \$8.7 billion, representing a new record and absorbing the largest portion of Gross National Product of any post-war year. By 1958, however, a change had developed in the pattern of capital spending. The huge projects that were started a few

¹Defence construction, inventories and the cost of buying land, are included in the foregoing calculations and in the tables used in this chapter, but other defence spending is not included.

years earlier were completed and there were no new ones to take their place. At the same time, increased productive capacity both at home and abroad reduced somewhat the pressure of demand, while the markets for industrial materials became softer. This resulted in ample capacity to meet current demands and, in some cases, even brought about a reduction in capital investment programs, particularly in the mining industry. Consequently, capital expenditures in 1958 fell a little below the previous year's total, to \$8.4 billion. Nevertheless, this total was still well ahead of any previous year and comprised more than 26 per cent of the Gross National Product. Above all, capital expenditures were kept at near-record levels by a revival of housebuilding activity which resulted in a record number of housing starts and completions for 1958. This situation was due largely to the reduction of former pressures on labour, materials and financial capital, and, particularly, to the Federal Government's injection of funds for housing purposes late in 1957 and early in 1958. As the year progressed, an increasing supply of money also became available from private sources.

With the completion of such huge projects as the St. Lawrence power development and the trans-Canada pipeline, total capital expenditures in Canada, particularly in the field of fuel and power, ceased to rise at the tremendous rates of previous post-war years. But despite this, total private and public capital spending in 1959 amounted to \$8.4 billion, very slightly more than in 1958 and in total continued to comprise a larger percentage of the Gross National Product than any post-war year prior to 1956.

In 1960, total capital expenditures for all sectors of the economy amounted to \$8.2 billion—a drop of 2.6 per cent from the previous year. Outlays of businesses remained steady after falling sharply in 1958, and expenditures for housing and social capital declined by 5.3 per cent from the previous year. The most important change was reduced investment for housing, as opportunities in other fields became more attractive, and demand for housing diminished.

The absolute and comparative amounts of capital investment in Ontario during recent years by type and sector, as well as in aggregate, are analyzed in the remainder of this chapter.

Total New Capital and Repair Investment

New capital and repair investment in Ontario for 1960 was \$3.9 billion and represented 34.6 per cent of the total for Canada as a whole. Since 1948, Ontario's share of total Canadian capital and repair investment has not fallen below 34.2 per cent.

In normal times, total capital and repair investment in Ontario has expanded at an annual rate of six to eight per cent but, in 1951, at the time of the Korean War, the annual increase was as high as 20.6 per cent. During the recession of 1954, the rate of increase was only 1.3 per cent, and, for the years 1958 and 1959, annual decreases were recorded at 3.2 and 2.3 per cent, respectively. It might be noted, however, that the rates of increase for 1956 and 1957 were abnormally high—20.7 and 11.9 per cent, respectively. In 1960, there was a further decline of 2.1 per cent, but despite the recent declines, the total for 1960 was still more than double that of 1948. Since 1948, Ontario's investment outlays have far exceeded those of any other province. In fact, except for 1956, capital expenditures in Ontario were greater than those in the next two largest provinces combined. After Ontario, in order of diminishing contribution to total capital expenditures for 1960, come Quebec, Alberta, British Columbia, and Saskatchewan.

TOTAL NEW CAPITAL AND REPAIR INVESTMENT IN CANADA AND ONTARIO, SELECTED YEARS 1948 TO 1960

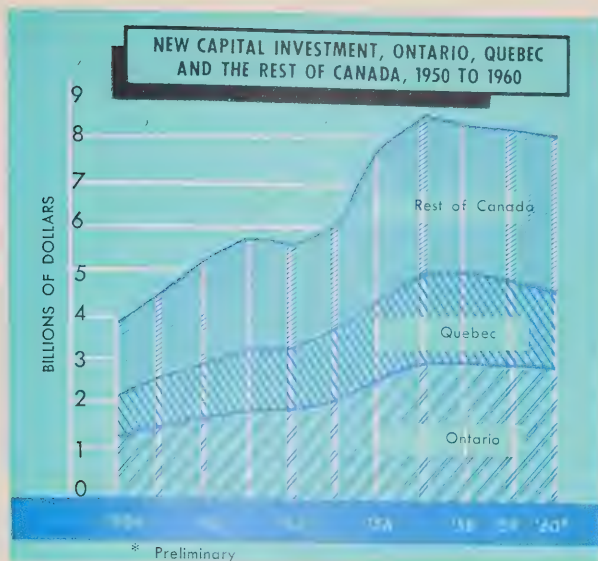
	1948	1950	1952	1954	1956	1958	1959	1960 ¹	Percentage Increase 1948-1960
	(Millions of Dollars)								
Ontario.....	1,724	2,020	2,619	2,903	3,726	4,080	3,988	3,906	126.6
Canada.....	4,636	5,453	7,274	7,754	10,438	10,977	11,298	11,118	139.8
Ontario as a Percentage of Canada.....	37.2	37.0	36.0	37.4	35.7	37.2	35.3	35.1	

¹Preliminary actual.

New Capital Investment

As with total capital and repair investment, since 1948 the largest share of new capital investment in Canada has been undertaken in Ontario. In 1960, investment was 34.6 per cent of the Canadian total. In 1956, the year of greatest expansion, Ontario's share was 35.4 per cent of the total. In the amounts of new capital investment carried out since the beginning of 1948, Ontario leads all provinces. In 1960 Quebec, Alberta, British Columbia, Manitoba and Saskatchewan trailed Ontario, in that order.

Since 1948 the trend in new capital investment has been much the same as that in total capital and repair investment, but rates of change have been slightly larger. In normal years the rate of expansion has been around nine or 10 per cent; in 1951 and 1956 the rates were 22.6 and 25.1 per cent, respectively. During the 1954 recession, however, there was not only a slowing down in the rate of new capital investment but an actual 0.8 per cent reduction over the previous year. Similarly, in both 1958 and 1959, there was a reduction in the rate of new capital investment of 3.6 per cent and 6.9 per cent respectively.



In 1960 there was a further decline of 2.3 per cent. Nevertheless, new capital investment in 1960 was nearly two and one-half times larger than the amount invested in 1948.

NEW CAPITAL INVESTMENT IN CANADA AND ONTARIO,
SELECTED YEARS 1948 TO 1960

	1948	1950	1952	1954	1956	1958	1959	1960 ¹	Percentage Increase 1948-1960
(Millions of Dollars)									
Ontario.....	1,183	1,419	1,899	2,089	2,842	3,104	2,900	2,836	140.0
Canada.....	3,175	3,815	5,283	5,625	8,019	8,363	8,417	8,200	158.3
Ontario as a Percentage of Canada.....	37.3	37.2	36.0	37.1	35.4	37.1	34.5	34.6	

¹Preliminary actual.

New Capital Investment in Constant Dollars

When allowance is made for price increases it is found that the rate of expansion in new capital investment is more moderate. If annual new capital investment figures are expressed in constant 1949 values the increase in Ontario from 1948 to 1959 is 56.0 per cent. Using current figures the increase is 165 per cent. But in 1959, there was an annual percentage decrease in new capital investment, using constant 1949 values, of 8.4 per cent. In current dollars the decrease was 6.6 per cent.

When the two components of new capital investment—new construction expenditures, and new machinery and equipment expenditures—are analyzed, it is observed that new construction expenditures record a nearly threefold increase from 1948 to 1959, but when allowance is made for price increases, the increase is less than twice. Similarly, new machinery and equipment expenditures, in current dollars, from 1948 to 1959 were nearly doubled but, in terms of 1949 values, were about one and a half times greater.

NEW CAPITAL INVESTMENT IN CONSTANT DOLLARS IN ONTARIO,
SELECTED YEARS 1948 TO 1959

	1948	1950	1952	1954	1956	1957	1958	1959 ¹	Percentage Increase 1948-1959
(Millions of Dollars)									
Construction	706	850	903	1,011	1,271	1,420	1,451	1,284	81.9
Machinery & Equipment..	532	495	631	618	779	839	656	647	21.6
Total.....	1,238	1,345	1,534	1,629	2,050	2,259	2,107	1,931	56.0

¹Preliminary actual.

New Capital and Repair Investment by Type and Sector

As much as 73 per cent of the \$3.9 billion to be expended in 1960 on construction, machinery and equipment is for new capital.¹ The remaining 27 per cent is devoted to repairs. In 1956, new capital absorbed 77 per cent and repairs 23 per cent. It has been a general experience, in all areas of capital investment, that expenditures on new capital exceed those on repairs. In the case of construction, moreover, there has been a definite trend for the expenditure on new capital to rise relatively to that on repairs. Vast quantities of Canadian and foreign capital have been channelled year after year into residential and non-residential buildings, roads and other construction projects.

Of late, the creation of new capital has received a much greater investment emphasis in the construction field than it has in the machinery and equipment field. In 1960, the portion of the investment dollar devoted to new machinery and equipment, relative to repair of machinery and equipment, improved slightly in importance. In 1959 it comprised about 62 per cent of total machinery and equipment expenditures, and in 1960 it comprised 63 per cent.

PERCENTAGE OF EXPENDITURES ON CONSTRUCTION
AND ON MACHINERY AND EQUIPMENT DEVOTED TO
NEW CAPITAL AND REPAIRS IN ONTARIO,
1948 AND 1956 TO 1960

	Construction		Machinery and Equipment		Total	
	New	Repair	New	Repair	New	Repair
1948	72.8	27.2	63.6	36.4	68.6	31.4
1956	82.7	17.3	67.4	32.6	76.3	23.7
1957	82.4	17.6	68.8	31.2	76.8	23.2
1958	82.5	17.5	64.8	35.2	76.1	23.9
1959	79.6	20.4	62.4	37.6	72.7	27.3
1960	79.1	20.9	63.0	37.0	72.6	27.4

During the last four years, new construction has attracted as much as 66 per cent of total new capital and repair investment. This pattern of investment is beneficial to Canada from the trading standpoint because the import content of machinery and equipment is high, while that for construction is much smaller. However, construction expenditures do not predominate in all sectors or industries. In the Primary, Construction, and Manufacturing Industries, approximately 70 per cent of the expenditure

¹See statements in the Statistical Appendix.

on new capital and repairs is for machinery and equipment. But what gives construction such a large share of the overall expenditure is the tremendous amount of money going into it under the headings of Utilities, Housing, Institutional Services and Government Departments.

In 1960, of the total investment of \$3.9 billion, \$2.3 billion (59.0 per cent) was spent on construction and \$1.6 billion (41.0 per cent) on machinery and equipment. This figure for construction is down only \$52 million (2.2 per cent) from 1959 and that for machinery and equipment is down only \$30 million (1.9 per cent) from 1959. The decrease in total investment for 1960 from 1959 is accounted for mainly by decreases in housing investment which was partly offset by increased investment in manufacturing and in construction for Institutional Services and Government Departments.

Manufacturing attracted nearly 25 per cent of total capital and repair investment in 1956. It was the leading sector. After it came Utilities and Housing, each with approximately 19 per cent. Institutional Services and Government Departments followed with 15 per cent,

the Primary and Construction Industries with 13 per cent, and Trade, Finance and Commercial Services with almost nine per cent.

PERCENTAGE OF EXPENDITURES ON NEW CAPITAL AND ON REPAIRS DEVOTED TO CONSTRUCTION, AND MACHINERY AND EQUIPMENT IN ONTARIO, 1948 AND 1956 TO 1960

	New Capital		Repairs		Total	
	Machinery and Equipment		Machinery and Equipment		Machinery and Equipment	
	Construction	Equipment	Construction	Equipment	Construction	Equipment
1948	57.6	42.4	47.0	53.0	54.3	45.7
1956	62.9	37.1	42.3	57.7	58.0	42.0
1957	63.3	36.7	44.8	55.2	59.0	41.0
1958	69.1	30.9	46.5	53.5	63.7	36.3
1959	65.7	34.3	44.9	55.1	60.0	40.0
1960	65.3	34.7	45.7	54.3	59.9	40.1

In 1960, investment was fairly evenly distributed with about 22 per cent of the share going for Manufacturing, 20 per cent for Utilities, 18 per cent for Housing, and 19 per cent for Institutional Services and Government Departments, with the remaining two sectors, Primary Industries and the Construction Industry, and Trade, Finance and Commercial Services, trailing with a little more than nine per cent each of the remaining total.

Natural Resources

AGRICULTURE

Ontario not only is Canada's most highly industrialized Province, but also ranks first in agricultural production. It contains approximately one-quarter of the nation's farms and accounts for about one-third of Canadian farm cash income. Since World War II, the annual farm cash income in Ontario has been higher than that in any other province.

Of the Province's land area, nine per cent or almost 20 million acres is farm land. Nine-tenths of this acreage is owned by the operators, while in the rest of Canada only about three-quarters of all farm land is operator-owned.

Land Use

Agricultural land-use patterns in Ontario are obviously influenced by factors other than the occurrence of soil materials suitable for farming. Climate, accessibility and distance to markets largely determine to what extent the land in a particular area is farmed. This explains why agriculture is carried on extensively in Southern Ontario rather than in Northern Ontario, where the land, though suitable for agriculture in several areas, is still mainly covered with dense forests. About nine-tenths of the farm land is located in Southern Ontario, south of Lake Nipissing.

For many years, total farm acreage in the Province has been gradually declining. There are several reasons for this. First, the increasing efficiency of agricultural operations, by affecting prices, has made it more difficult to continue farming on land of low productivity. Second, urbanization and industrialization have absorbed farm land in parts of Southern Ontario. Third, more profitable employment opportunities in nearby centres have attracted people away from farming and left land idle.

NUMBER OF FARMS AND FARM ACREAGE IN ONTARIO, CENSUS YEARS 1931 TO 1956

	Number of Farms	Improved Acreage	Unimproved Acreage	Total Acreage	Average Acreage Per Farm
		(Thousands of Acres)			
1931	192,174	13,273	9,568	22,841	118.9
1941	178,204	13,363	9,025	22,388	125.6
1951	149,920	12,693	8,187	20,880	139.2
1956	140,602	12,572	7,307	19,879	141.4

¹A change in 1951 in the definition of a farm affects comparisons with earlier statistics. The effect on Ontario figures is not known, but for all of Canada about half the reduction in the number of farms from 1941 to 1951, as reflected by the statistics, is the result of the new definition.

Most abandoned farm land is of marginal productivity. This is evidenced by the fact that 88 per cent of the total decrease in farm acreage between 1951 and 1956 was in unimproved farm land. Of a total decline of over one million acres, improved land represented only 121,000 acres. About one-third of the net loss in improved land was concentrated in York County, where the rapid expan-

sion of Metropolitan Toronto and other communities absorbed thousands of acres of good farm land.

A study of land-use patterns in different parts of the Province reveals that although the total area of improved farm land in the Province has been decreasing, some areas show gains. In the 1951 to 1956 period, increases are reported for most counties in the agricultural area north of Lake Erie. Although, as a result of continued urbanization, there was a decline in farm acreage on the Niagara Peninsula and in the Hamilton area, Brant and Haldimand counties together with the Lake Erie and Lake St. Clair regions showed an increase of over 70,000 acres of improved farm land.

The introduction of mechanical and electrical equipment has prompted many operators to farm on a larger scale, since for the small farm unit a considerable investment in farm machinery usually is not economically justified. A steady increase in the average size of farms has accompanied the decrease in total acreage. It reached 141.4 acres in 1956, almost one-fifth greater than in 1931. However, a study of title transfers shows that the increases in acreage are concentrated in a minority of farms.

The average acreage per farm is strongly influenced by the type of farming practised. In fruit and poultry farming, for example, the economic utilization of land is usually more intense than it is in some other forms of agricultural production. Thus—though the Provincial trend towards larger farm units is associated with the creation of more profitable farms—the average acreage per farm is comparatively low in some of our most prosperous farming districts. For instance, in Lincoln County (in the Niagara fruit belt) farms averaged only 49.2 acres at the time of the 1956 Census. But in the Kenora District of Northwestern Ontario, where farming is less developed and there are large areas of unimproved land available at low prices, the average was 220.5 acres.

Labour Force and Farm Population

The post-war period has seen a marked decline in the farm labour force, as is illustrated by the following statistics:

ONTARIO'S FARM LABOUR FORCE, SELECTED YEARS 1946 TO 1960
(Annual Averages)

	Number of Persons	Per Cent of Total Provincial Labour Force
1946	321,000	18.9
1951	239,000	12.8
1956	215,000	10.0
1957	193,000	8.6
1958	180,000	8.0
1959	177,000	7.7
1960	179,000	7.6

The forces which have caused a decline in the farm labour force are related to those reducing total farm acreage in the Province. The use of fertilizers and the introduction of labour-saving devices such as tractors,

combines, milking machines and other mechanical aids have made it possible to meet the demand for food for an increasing number of people with a smaller labour force. The decline in the number of farms and the farm labour force in Ontario is in line with trends in other developing economies. The rapid development of Ontario's non-agricultural economy and the higher wages offered in the manufacturing industry have also attracted manpower away from our farms. This phenomenon has been evident not only in farming districts of marginal productivity, but also in highly developed fertile agricultural areas. As a result of this competition on the labour market, farm wages have increased, although their average level has remained below that prevailing in manufacturing industries. In 1960, average monthly wages of male farm help were from 25 to 30 per cent higher than five years earlier.

In 1956, the total farm population, as distinct from the labour force, was 683,148 compared with 702,778 in 1951. Farm residents thus accounted for 12.6 per cent of Ontario's population at the latest Census in 1956, as against 15.3 per cent five years earlier and 23.3 per cent in 1931. The decline in the Province's farm population was considerably less pronounced between 1931 and 1951 than the decrease in the number of farms. The population per farm even showed a gain during that period. This rise in the population per farm may be due to the fact that members of the farmer's family, while continuing to live on the farm, go to school or jobs in nearby communities. This has become increasingly feasible, with the ever-widening ownership of automobiles and the continuous improvement of our rural road system.

Production and Income

Ontario's farm cash income in 1960 was \$883.2 million, the highest on record. The gross value of agricultural production estimated at \$1,204 million, moved closer to the all-time high of \$1,262 million, reached in 1951. Contributing factors were the large tobacco and potato crops and increased revenues received from the sale of cattle and dairy products. The following table gives a general indication of the rise in farm production and income since World War II:

GROSS VALUE OF FARM PRODUCTION, FARM CASH INCOME AND FARM NET INCOME IN ONTARIO, SELECTED YEARS 1939 TO 1960

	Gross Value of Production	Cash Income	Net Income
		(Thousands of Dollars)	
1939	372,249	208,974	115,102
1945	703,986	442,625	250,995
1951	1,262,088	800,666	431,172
1956	1,097,519	780,551	313,026
1957	1,083,419	790,199	330,223
1958	1,189,189	854,807	383,002
1959	1,172,674	857,272	314,609
1960*	1,204,223	883,229	352,619

*Preliminary

Inevitably, the greater use of labour-saving machinery has improved production and income per farm and per person employed. Working in conjunction with these forces have been the increased application of fertilizer, the use of better strains and the elimination of low-productivity farms. At \$9,113, the estimated gross value of production per farm in 1960 reached an all-time high, exceeding the previous record years 1951 and 1959. Last year, cash income per farm was 25 per cent in excess of the corresponding 1951 figure.

GROSS VALUE OF FARM PRODUCTION AND CASH INCOME PER FARM IN ONTARIO, SELECTED YEARS 1951 TO 1960

	Gross Value of Production per Farm	Cash Income per Farm
	\$	\$
1951	8,418	5,341
1956	7,806	5,551
1957	7,829	5,704
1958	8,735	6,407
1959	8,752	6,473
1960*	9,113	6,685

*Estimated.

Livestock and poultry farming dominate Ontario's agricultural economy. In 1960, livestock and all forms of livestock products provided \$638 million in farm cash income or three-quarters of the total from all sources. Tobacco—usually classed separately—was the second largest source of cash income, accounting for over one-tenth of the aggregate, followed by field crops with nine and fruits and vegetables with seven per cent.

The predominance of livestock and livestock products in the Province's farming economy has changed little since World War II. Within the group, however, substantial changes in the relative importance of the constituent products have taken place. Cash income from the sale of cattle and calves, which was about equal to that for hogs following 1945, is now twice as high as the income from hog marketings. The most marked change in the livestock products picture has, however, been in poultry meat; per capita consumption in Canada has risen from 19 pounds in 1957 to about 23 pounds in 1960. In conjunction with this, an immense broiler industry has grown up, with large investments in plant and highly developed mass production methods. Egg marketings also have been on the increase over recent years. Dairying brought in more than one dollar in five of farm cash income in 1960. Milk production rose again in 1960 and reached a level of 6.2 million pounds. The importance of dairying in relation to total farm cash income is somewhat greater than six or seven years ago, but less than in the years immediately after the war. Creamery butter production in 1958 rose to the highest volume of the post-war period, but declined slightly in 1959 and 1960.

FARM CASH INCOME FROM THE SALE OF SELECTED LIVESTOCK PRODUCTS IN ONTARIO, SELECTED YEARS 1946 TO 1959

	Cattle and Calves	Hogs	Poultry	Eggs	Dairy Products
	(Millions of Dollars)				
1946	135.8	119.1	25.9	41.2	140.2
1951	200.3	138.1	68.4	51.8	136.9
1954	156.6	121.5	55.9	53.9	142.9
1956	191.3	114.4	63.0	64.9	152.7
1957	175.0	114.7	55.7	64.6	161.0
1958	209.0	115.9	62.8	70.5	171.4
1959	206.2	127.8	57.6	64.6	184.8

Although about 63 per cent of Ontario's improved land was in field crops (including potatoes) at the last Census, field crops accounted for nine per cent of the farmer's dollar income in 1960. The largest part of field crop pro-



duction is fed to livestock on the farms where the field crops are grown. Thus, oats production reached \$61 million in 1960, but cash income realized from this commodity was estimated to be only \$4.3 million. Of the field crops that are sold, however, a portion is also used as feed in livestock production.

Tobacco, by far the most important cash crop, has been the most rapidly expanding major section of Ontario farming over the post-war period. It brought \$90 million in cash income to farmers in 1960, compared with \$34 million in 1946. Although tobacco prices have risen, this expansion has been based mainly on large increases in acreage and physical output. Acreage harvested has climbed from 46,191 in 1936, to an estimated 124,000 for 1960. Most of the Province's tobacco is grown in the area north of Lake Erie, with the heaviest concentration in Norfolk County. Tobacco farms are also located in the counties of Simcoe, Durham and Northumberland. By far the greatest part of the total output is accounted for by

flue-cured tobacco, but burley and dark tobaccos have also traditionally been grown.

Almost two-thirds of the Province's 1960 cash income from the sale of fruits and vegetables was attributable to the vegetable group (excluding potatoes). The fruit-growing sector has been more than holding its own. The apple crop has increased over the post-war period; it has been supplying a growing Canadian demand and has also found an outlet in United States markets.

FARM CASH INCOME FROM THE SALE OF TOBACCO, VEGETABLES AND FRUITS IN ONTARIO, SELECTED YEARS 1946 TO 1960

	Tobacco	Vegetables (Millions of Dollars)	Fruits
1946	33.7	27.0	14.1
1951	54.6	35.6	14.6
1954	63.6	34.1	21.9
1956	60.0	33.9	17.5
1957	73.7	39.3	18.7
1958	80.8	44.5	20.8
1959	85.3	42.1	15.6
1960*	90.0	44.0	19.0

*Estimated.

Fruit growing is more localized than most other forms of farm production. The Niagara Peninsula, in 1956,



Courtesy—Ontario Department of Travel and Publicity.

Tobacco field near Port Stanley, located in the Province's main tobacco-growing area. Tobacco is Ontario's principal farm cash crop, estimated to have yielded the farmers about 90 million dollars in 1960.

accounted for 79 per cent of all peach trees in the Province, 75 per cent of all pear trees and 73 per cent of all cherry trees. In addition, about 90 per cent of the plums and virtually all of the grapes grown in the Province come from the Peninsula. An important development has been the expansion of sales of frozen fruit in food stores. Growers of several crops have benefited by this increased demand. The Niagara Peninsula, for instance, supplies almost all cherries for freezing in Canada.

Farm Mechanization and Rural Power Development

The striking rise in agricultural labour productivity and the growth of the farm unit have been largely made possible by the increasing mechanization of farm operations. It is estimated that the number of farm tractors in Ontario now exceeds the number of farms. In 1957 there were, for the first time, more tractors on Ontario's farms than horses. One aspect of this development is that the decrease in the number of horses in the Province (from 470,000 in 1945 to 95,000 in 1960) has made acreage available for cattle or field crops.

MACHINERY ON FARMS IN ONTARIO, 1941, 1951 AND 1958¹

	June, 1941	June, 1951	January, 1958
Tractors	35,460	105,204	139,506
Combines	760	10,031	17,813
Threshers	9,094	15,946	13,489

¹Estimated by "Canadian Farm Implements", Winnipeg.

Since World War II, spectacular progress has been made in the mechanization of field operations. Tractor sales in Ontario sharply increased between the end of the war and 1950, in which year over 17,000 tractors are estimated to have been sold in the Province. The annual number sold has declined to an estimated 7,172 in 1959 and 6,586 in 1960. This suggests that farmers' needs for tractors are rapidly being met. Most of the tractors purchased now are to replace worn-out and obsolete equipment. Sales of agricultural machinery and parts rose to an all-time high in 1959 with a wholesale value of \$58.6 million and last year dropped slightly to \$56.3 million.

The increase in gasoline used on farms, as set out in the following table, also illustrates the growing use being made of machinery in field operations. Diesel engines are also being employed more frequently for traction.

GASOLINE USED IN FARM OPERATIONS IN ONTARIO¹,
SELECTED YEARS 1946 TO 1960

	Millions of Gallons
1946.....	31.2
1951.....	66.1
1954.....	75.0
1956.....	78.5
1957.....	80.9
1958.....	83.4
1959.....	82.3
1960.....	79.9

¹Estimated by the Ontario Department of Economics. Figures exclude gasoline used in farm trucks.

The frontier of farm mechanization today lies in the improvement of machinery—the development of more easily driven tractors, for instance—and the introduction of various materials-handling machines. The latter class of equipment includes automatic feeding systems, bulk handling and cooling systems for milk, barn gutter cleaners and other labour-saving devices. These improvements all help to increase the productivity of the farm labour force.

The mechanization of farming operations and the raising of living standards in rural Ontario have both been greatly advanced by the Provincial Government's rural power development program. The Province's investment in rural power transmission lines totalled an estimated \$96 million in the 18 fiscal years ended in 1960-1961. With the expansion of rural power facilities, electric motors have entered widely into use as a stationary power source. Almost 30 per cent of farms reported electric motors in 1951, compared with about 13 per cent in the 1941 Census. Farmers now can have all such conveniences of city life as refrigerators, television, radio and vacuum cleaners. Farm electrification has progressed today to the point where expansion involves principally the installation of more electricity-using equipment and increases in power consumption. More than nine out of ten farms now use centrally generated electricity; most of the farms not yet supplied with electricity are located close to power lines and can be connected at the farmer's request.

An impetus to the completion of electrification has been given by The Hydro-Electric Power Commission of Ontario through a policy, introduced in 1958, of providing free extension of service lines to established farms for the first two-thirds of a mile instead of one-third of a mile as before. During 1960 over six hundred miles of distribution lines were added to the rural system of The Hydro-Electric Power Commission of Ontario, bringing the total to some 48,000 miles. By the end of the year, about half a million rural customers including 140,782 farm service customers were being served by the Commission. This was over three times the number of rural customers served in 1945. The consumption of electricity per farm increased sharply from 2,704 kwh in 1948 to 3,825 kwh in 1953 and to 6,039 kwh in 1960. The number of miles of rural primary distribution lines has more than doubled in the past 15 years.

Rural Communications

The Province's extensive network of rural roads greatly facilitates the flow of agricultural products to markets. It has freed the farmer and his family from the isolation that was the lot of their pioneer ancestors. The total mileage of rural roads has been constantly increasing as a result of

local and Provincial Government programs. The main improvement in recent years, however, has been in the quality and capacity of roads.

Rural roads have been carrying an increasing amount of traffic. In 1958, some 62,600 Ontario farm trucks travelled an estimated 231 million miles and carried 4.5 million tons of goods.

The rural road system consists of county roads, roads in organized townships, improvement districts and Indian Reserves and roads built in unorganized townships by the Provincial Government. The latter roads, accounting for a minor portion of total rural road mileage, serve a variety of interests in areas where agriculture in most cases is as yet undeveloped. In 1959 the Province's rural road mileage stood at 76,946 miles; organized township roads made up 66.8 per cent of the total or 51,234 miles. County roads totalled 9,431 miles.

The county roads perform the vital function of joining the purely local road systems to the King's Highways and the urban municipalities. It is with respect to county roads especially that considerable improvement has been accomplished. The mileage of paved county roads increased from 2,674 miles to over 4,300 miles between 1945 and 1960. County road mileage in individual counties varies from a low of 127 miles in Brant County to a high of 510 miles in Middlesex County. It is estimated that capital expenditures for construction needs on these roads over the next 20 years will amount to over \$360 million. While some county roads are used by an average of only 50 vehicles per day, others carry a daily traffic amounting to 10,000 vehicles and over.

The township roads generally carry the fewest vehicles per day of any of the systems, yet they provide an indispensable service by giving local access to the rural areas. More than 95 per cent of the township and other local roads are gravelled or unsurfaced. Studies by the Department of Highways indicate that about 2,700 miles of pavement should be added within 20 years and most of the unsurfaced roads (about 9,800 miles or 18 per cent of the total township roads) should be gravelled. Estimated capital expenditures for construction needs on township roads over the next 20 years amount to over \$703 million.

In the decade 1950 to 1959, total expenditure on county and organized township roads in Ontario amounted to \$472 million. The Provincial Government participated in these costs by means of subsidies to the extent of \$261 million. These road systems exclude townships in the Municipality of Metropolitan Toronto and incorporated cities, towns and villages.

In addition to road communications, telecommunications in agricultural areas are also being improved continually. Rural Ontario is well served with telephones.

The Ontario Telephone Service Commission gives administrative and technical assistance to approximately 300 independent telephone systems, operating mostly in farming areas. The number of these systems has been declining slowly as a result of amalgamations into larger, more efficient units, and sales of systems to The Bell Telephone Company of Canada. The number of rural telephones has been rising, but it includes many categories in addition to farm telephones.

RURAL TELEPHONES¹ IN ONTARIO, SELECTED YEARS 1946 TO 1960

	Business	Residence (Number)	Total
1946	7,606	137,507	145,113
1951	11,727	174,106	185,833
1956	12,297	188,134	200,431
1958	11,350	194,863	206,213
1960*	16,982	197,061	208,043

¹Four or more telephones on a line.

*Estimated

The Bell Telephone Company of Canada operated 120,405 rural telephones in 1960 or about 58 per cent of the total. Other telephone systems are operated by corporations, municipalities or private companies. At the beginning of 1960, the latter systems—in addition to many non-automatic exchanges—operated 54 dial exchanges in rural Ontario, of which 25 were located in Northern Ontario.

Farm Management¹

The production and net income which the farmer derives from the resources available to him depend largely on his farm management methods. In order to maximize his profits, the farmer must choose from a number of alternatives: which crops will provide the highest revenue; how many head of cattle can be raised on the farm; what new methods or equipment should be used. These choices are becoming increasingly important in today's changing farm economy. The Ontario Department of Agriculture's Farm Economics Branch has for many years studied these problems under local conditions and makes expert guidance available to farmers.

A highly successful program has been carried out with members of the Ontario Dairy Herd Improvement Associations. The results illustrate strikingly the value of this Government assistance and what can be accomplished under progressive farm management. From 1954 to 1958, this select group of producers increased their returns per herd by \$1,549. This advance was based on a gain in milk production per cow of 870 pounds per year and a reduction in labour per cow per year of 22 man-hours. One smaller group of producers reduced the cost of their milk by 27.3 per cent.

The Department of Agriculture carries on a continuous campaign to encourage good soil management, including the use of fertilizers and limestone. In many areas of Ontario acid soils are low in calcium and sometimes



Courtesy—Ontario Department of Travel and Publicity.

Farm near Picton. Livestock and livestock products are the backbone of Ontario's agricultural economy.

magnesium as well. The addition of limestone to the soil will often correct this condition as well as the acidity and make possible the growth of a wider range of crops in rotation. Tests on individual farms and plots give a more precise indication of what can be accomplished. In typical clay soil in Haldimand County, for instance, it was found that hay yields were raised as much as 60 per cent by the application of limestone. Financial assistance in the transportation of limestone is provided as a joint Federal-Provincial undertaking.

The consumption of fertilizer has increased considerably in recent years; Ontario sales of fertilizer in 1959 stood at 468,000 tons, twice the volume sold in 1946. Last year fertilizer sales were somewhat lower.

FERTILIZER SALES IN ONTARIO, SELECTED YEARS
1946 TO 1960 (YEARS ENDING JUNE 30)

	Tons
1946.....	237,080
1948.....	274,506
1951.....	368,296
1956.....	429,449
1957.....	415,986
1958.....	451,316
1959.....	467,617
1960.....	437,132

While fertilizers and limestone have played an important role in raising agricultural productivity in the Province, such other factors as the development of improved strains by plant breeders have also contributed. It is possible to cite some impressive increases in average yields over the years. The following table lists striking examples of crops which, on a Province-wide basis, showed an increase in average yields in each of the last two decades:

YIELDS OF SELECTED CROPS IN ONTARIO BY DECADES,
1930 TO 1959

	Average Annual Yield Per Acre			Per Cent Increase 1950-1959 Over 1930-1939
	1930-1939	1940-1949 (Bushels)	1950-1959	
Potatoes.....	104.3	119.2	198.5	90.3
Winter Wheat.....	25.9	28.6	33.4	29.0
Oats.....	33.9	36.8	45.4	33.9
Flax.....	9.9	11.3	12.8	29.3

Farm Marketing

A large number of farmers dealing with a relatively small number of processors or distributors have always been at a disadvantage in seeking the best possible price for their products. Trends toward the integration of processors and the formation of large food merchandising firms have complicated this situation. While co-operatives have continued to render outstanding service to Ontario farmers, they have not, by themselves, provided a satisfactory solution to the need for a strong bargaining organization since they have controlled only a portion of the supply of individual crops.

The need for legislative action became evident, and the Ontario Government in 1937 introduced The Farm Products Control Act, replaced it in 1946 by The Farm Products Marketing Act and again overhauled it in 1960. The Farm Products Marketing Board was established, which considers marketing plans petitioned for by 15 per cent or more of producers of a crop or product class, holds plebiscites to determine if a majority of producers affected want a particular plan, and supervises producer boards set up to administer plans.

There are two kinds of plans: the negotiating or collective bargaining type and the single sales agency type. In a negotiating plan, growers' representatives bargain with buyers' representatives to set minimum prices that will govern the sale of a product by individual buyers. If the negotiating committee cannot agree, prices are subject to arbitration. Two negotiating plans (wheat and white beans) operate price stabilization funds authorized under Federal legislation; deductions from prices paid to farmers are forwarded by dealers to the respective marketing boards. These funds are used to subsidize exports in years when surpluses exist, unexpended funds being returned to farmers at the end of each crop year.

In a single sales agency plan, the growers' board administering the plan acts as the exclusive sales agency for the product involved. The board, having the entire Ontario-produced supply under its control, is able to regulate amounts and timing of sales to secure orderly marketing and reasonable prices. In some single agency plans there is also negotiation of minimum prices.

It is estimated that more than half of all farm cash income earned in 1960 was realized from products sold under Provincial marketing legislation. Thirteen plans were in force under The Farm Products Marketing Act at the beginning of 1960, covering 26 crops.¹ An additional large marketing program is administered by the Milk Industry Board of Ontario under The Milk Industry Act,¹ which provides for collective bargaining between producers and distributors and producers and transporters of milk and milk products.

The marketing of farm products as well as many other agricultural problems are currently being investigated by the Agricultural Enquiry Committee appointed by the Ontario Government in 1959. Studies are being made of a proposed Agricultural Research Foundation, which, operating on a continuing basis, would carry out research on farm marketing organization, the transportation, handling, packaging and storing of agricultural commodities, the growing of the best strains, family farming, vertical integration and related matters.

Vertical Integration

The term "vertical integration" is used to designate a variety of programs under which two or more stages of the production and distribution processes from raw materials to final products are brought under the control of one organization.

In agriculture, vertical integration often consists in sharing the farmer's risks with a distributor or processor. This link-up may involve credit extended to the farmer, outright ownership of his livestock or crop in the field, complete guarantees against loss on his sales, or only the most limited sort of undertaking to purchase his output.

Any one of a large number of variations and combinations of terms is possible. One aspect of vertical integration, contract farming, has been the subject of much discussion in recent years. The most extreme form of vertical integration goes beyond contract farming to ownership of the whole farm by a business corporation, but this is rare.

Although contract farming is the most common form of vertical integration in our Province, it is difficult to measure its extent. One of the reasons is that in a number of cases the terms of the contract are so flexible that one party to the agreement can hardly be considered to have any measure of control over all or part of the organization of the other. In such instances, it is sometimes doubtful whether the term "contract farming" should apply. A noted expert² in this field estimates that about 80 per cent of chicken broiler production is under contract. Turkey broilers are produced almost entirely under contract with the exception of two cases where a large grower is a processor as well. Contracts covering market eggs are increasingly being based on prices which fluctuate with published quotations plus a bonus for volume. It is doubtful whether this method—used particularly by larger and better quality producers—still comes under the term "contract farming." It is expected that contracting on a quality-control basis may soon become a factor in the egg trade.

In hogs, as in eggs, Federal Government marketing policies have tended to reduce the importance of contract farming for these commodities. Owing to the existence of the Ontario Hog Producers' Marketing Board, hog contracting has involved feed suppliers rather than processors. About eight per cent³ of Ontario's hog production in 1960 came under some form of credit contract with feed producers. These contracts no longer cover ownership of the hogs, as they sometimes did formerly.

Sugar beets and various canning crops have long been the subject of contracts between processors and farmers in Ontario. It should be noted that integration is not all in one direction. Farmer-owned co-operatives already own considerable processing facilities in Ontario and have been thinking in terms of expansion.

Government Assistance to Agriculture

To help farmers overcome obstacles to higher output and better incomes, the Ontario Government has a broad program of assistance, both financial and technical. The heart of the technical assistance program is the Extension Service, with resident representatives in all agricultural

¹The plans are listed in the Statistical Appendix to part II of this publication.

²Professor J. R. Cavers, Head of the Department of Poultry Science, Ontario Agricultural College.

³Estimate by Mr. J. P. Hrabovsky of the Ontario Agricultural College.

parts of the Province. These trained experts pass on to the farmers the results of research at the Ontario Agricultural College and the Ontario Veterinary College at Guelph, as well as other information and advice. A comprehensive program is being implemented for the improvement of the Province's facilities for basic agricultural research and education. In the eight years ended March 31, 1961, the Ontario Government's capital expenditures on the Ontario Agricultural College and the Ontario Veterinary College at Guelph amounted to \$14.2 million.

The Co-operative Loans Program provides credit to co-operatives to assist them in financing facilities for grading, cleaning, packing, storing, drying, processing and marketing of farm products. Under a Junior Farmer Establishment Program the Province from 1952 to 1960 made almost 3,900 loans amounting to nearly \$29 million to qualified young farmers seeking to get settled on farms of their own. This program was discontinued in 1960 as a result of the Federal Government providing the same service through its new Farm Credit Corporation.

A number of programs aim to improve the quality of Ontario livestock and protect them against animal diseases. To encourage the breeding of better stock, the Province maintains various subsidy plans, known as the Bull Premium Policy, the Boar Premium Policy, the Ram Premium Policy and the Pure Bred Foal Policy. Under The Artificial Insemination Act, the Province licenses artificial insemination centres which are steadily raising the quality of Ontario cattle. Approximately 500,000 cows were bred with the assistance of these centres in 1960, compared with about 81,000 in 1950. Another important program is carried out to protect livestock from the warble fly. Under the Brucellosis Control Program considerable progress has been made in the establishment of brucellosis-free areas. If the present rate of testing is maintained, over 30 counties should have reached the status of a brucellosis-free area by the end of the fiscal year 1961-62. This will tend to stimulate further the Province's export of beef and dairy cattle. In 1960, approximately 30,000 head of dairy cattle were exported, mainly to the United States, Central and South America.

As mentioned earlier, freight charges on agricultural limestone are subsidized. Also, special reduced rail rates are negotiated. A Farm Safety Program is carried on in a continuous effort to reduce accidents. Rural life is enriched as a result of aid extended to communities for the construction of arenas, halls, athletic fields, rinks and swimming pools under the Community Centres Program.

Northern Ontario, with its rigorous climate and long freight hauls to markets, has special agricultural problems. But with its 2,171,633 acres of farm land and a large area of potential farm land, it also has special opportunities. To deal with both these problems and opportunities, the Province has implemented a program of assistance going

beyond that provided in other regions. These measures include grants for clearing and breaking land and subsidies for new farm wells and water supplies. Freight aid applies to such items as certain grades of seed potatoes, potato grading equipment and breeding cattle. Freight assistance and grants are provided on purchase of weed-control equipment by specified organizations. The transportation of agricultural limestone is subsidized to a higher maximum rate than in "Old Ontario".

Demonstration farms of the Ontario Government at New Liskeard and Sault Ste. Marie constantly study and carry out research with respect to agricultural problems in Northern Ontario. In this part of the Province, as in Southern Ontario, mechanization on the farm has been furthered by the expansion of electric power plant. Rural electrification from 1951 to 1960 more than doubled the number of rural customers in Northern Ontario.

FORESTRY AND FOREST-BASED INDUSTRIES

Over three-quarters of Ontario's land area is covered with forests. The Province's 167 million acres of forest land represent 15.3 per cent of Canada's forests and cover a territory almost six times as large as the State of Pennsylvania. About two-thirds of this area is accessible or potentially accessible and is classified as productive forest land. These vast forest reserves support some of the most important industries in our Province. In 1958, Ontario's forestry and forest-based industries produced a net output valued at nearly \$590 million, employed approximately 80,000 people and paid \$314 million in salaries and wages. In the same year, Ontario accounted for 28.2 per cent of Canada's net value of production in forestry and forest-based industries and for 28.4 per cent of its employment in that sector of the economy.

Of the 106 million acres of the Province's productive forest lands, some 10 million acres are private lands. The remaining 96 million acres (90 per cent) are owned by the Crown, and their administration—with the exclusion of 0.8 million acres of Federal Crown forests—is entrusted to the Ontario Government. This predominance of Crown ownership favours Province-wide forestry planning and management.

The Province's accessible merchantable timber is estimated at 84.8 billion cubic feet. About 60 per cent of this volume consists of softwoods, the balance of hardwoods. Five species account for 83 per cent of the total, namely: spruce (33 per cent), balsam (5 per cent), jackpine (14 per cent), poplar (19 per cent) and white birch (12 per cent). Spruce, balsam and jackpine are much in demand, particularly by the pulp and paper industry which is the largest consumer of the timber cut in our forests. Hardwoods, such as poplar and white

birch are sometimes used with softwoods for the production of wood-pulp. Industry and research institutions have accelerated their efforts to find a manufacturing process by which hardwoods can be used to a greater extent for producing pulp of a satisfactory quality at a competitive price. The importance of this problem is evident, since the hardwood species poplar and white birch alone account for nearly one-third of Ontario's accessible merchantable timber.

In the period 1951 to 1958 the annual wood cut in the Province averaged an estimated 538 million cubic feet. In addition to this intentional depletion, an average of 68 million cubic feet of timber was lost as a result of damage by forest fires. For the loss of timber caused by insects and disease no reliable estimates are available.

The value of the total cut in Ontario for 1958 was estimated at \$110 million of which pulpwood represented approximately 55 per cent and logs and bolts for lumber about 37 per cent. The remaining eight per cent was accounted for by fuel wood, poles, ties and other products requiring little or no processing. Various manufacturing processes more than quintupled the value of the raw material, as set out in the following table.

**NET VALUE OF FOREST PRODUCTION AND VALUE ADDED BY
MANUFACTURE OF THE FOREST-BASED INDUSTRIES
IN ONTARIO, 1958**

Net Value of Forest Production.....		\$ 98.3 million
Value added by manufacture:		
The lumber industry.....	\$ 23.7 million	
The pulp and paper industry.....	215.7 million	
The wood-using industries.....	137.0 million	
The paper-using industries.....	113.6 million	490.0 million
Total.....		<u>\$588.3 million</u>

In addition to their direct contribution to the nation's prosperity, the Province's forest-based industries influence, to a considerable degree, activity in other industrial sectors. In the period 1951 to 1958, the average annual value of materials purchased by these industries in the Province amounted to an estimated \$461 million. Furthermore, during the period 1955-1959 a total of more than \$400 million in capital and repair expenditures is estimated to have been invested in the Province's forest-based sector. About \$330 million, or over four-fifths of this total, was spent by the paper-using industries. Thus, the forest-based industries contribute considerably to activity in other sectors of the economy and indirectly create employment for many workers.

The importance of Canada's forest-based industries to our export trade is evidenced by the fact that about 30 per cent of our country's exports is accounted for by wood, wood products and paper. Their position in our trade relationship with the United States is even more prominent. More than 40 per cent of our export trade to that country is attributed to this group of industries. The decline in the premium of the Canadian over the American dollar therefore is particularly stimulating for this sector

of our economy. Export statistics on a provincial basis are not available, but if we assume that Ontario's forest-based industries participate in the export trade in the ratio of their output to the total production of this industrial group on a national basis, our Province's forest-based industries would contribute about nine per cent of Canada's total value of all exports.

The following figures illustrate the importance of Ontario's forest-based industries in relation to Canada's:

**FORESTRY AND THE FOREST-BASED INDUSTRIES IN ONTARIO AND
CANADA, PRINCIPAL STATISTICS, 1958**

	Ontario	Canada	Ontario as % of Canada
	(\$'000's)		
Gross Value of Production.....	1,163,528	3,883,539	30.0
Net Value of Production.....	588,319	2,086,004	28.2
Persons Employed.....	79,841	281,184	28.4
Wages and Salaries.....	313,980	1,117,445	28.1
Materials Purchased.....	538,143	1,669,214	32.2
Capital and Repair Expenditures*	84,200	281,600	29.9
Exports.....	n.a.	1,516,292	—
Corporation Profits Before Taxes*	n.a.	263,000	—

*Forestry not included.

The Forest-based Industries

The manufacture of *pulp and paper* is Ontario's most important forest-based industry. It has experienced an extraordinary development, particularly since the end of World War II. In only 13 years its gross value of production almost tripled from \$162 million in 1946 to \$449 million in 1958. The number of its employees increased by 40 per cent from 14,500 in 1946 to 20,200 in 1958 and in that same period its payroll tripled from \$33 million to \$98 million. Production reached an all-time record level in 1958, with gross value slightly exceeding the previous high established in 1957. A considerable rise in the demand for pulp and paper in 1956, prompted several manufacturers to increase their productive capacity. Many millions of dollars were invested in huge expansion projects. The pulp and paper industry accounted for the major part of approximately \$170 million in capital and repair expenditures estimated to have been laid out in 1957 and 1958 by Ontario's pulp, paper and paper-using industries. The year 1957 brought a slowdown in the rate of increase of demand and, mainly as a result of the addition to productive capacity, the pulp and paper industry, for the first time in years, found itself with some over-capacity. Production in the period 1958 to 1960 showed a continued upward movement which was particularly marked with respect to newsprint, paperboard and wrapping paper. Since long-term prospects are favourable, it is expected that within the next few years the present stand-by capacity will have been absorbed by a further increase in demand for the products of the Province's pulp and paper industry.

Most expansion projects initiated in recent years have now been completed and no major additions are planned

for the immediate future. The industry is considering the possibility of operating on the seven day week basis already in effect in British Columbia. It is estimated that such a measure would increase the existing capacity of Ontario's pulp and paper mills by ten per cent. If the legal obstacles

which deter business operations on Sundays should be overcome, the effect will probably be a delay of new plant expansions until the rising demand approaches the higher capacity level resulting from the addition of an extra workday each week.

The value of Ontario's wood-pulp production in 1958 amounted to \$217 million, over two and one-half times the corresponding 1946 figure and more than one-quarter of Canada's value of output for this product. Although part of the wood-pulp produced in our Province is shipped abroad, the bulk is used for the manufacture of paper in Ontario.

VALUE OF PAPER PRODUCTION BY KINDS IN ONTARIO, 1958, 1959 AND 1960

	1958	1959*	1960*	
	(\$000's)	(\$000's)	(\$000's)	% of Total
Newsprint.....	169,445	174,000	187,000	51.5
Paper Boards.....	67,930	71,000	75,000	20.7
Book and Writing Paper.....	59,201	64,000	66,000	18.2
Wrapping Paper.....	17,943			
Tissue Paper.....	12,834	33,000	35,000	9.6
Other Paper.....	1,930			
Total.....	329,283	342,000	363,000	100.0

*Preliminary estimates.

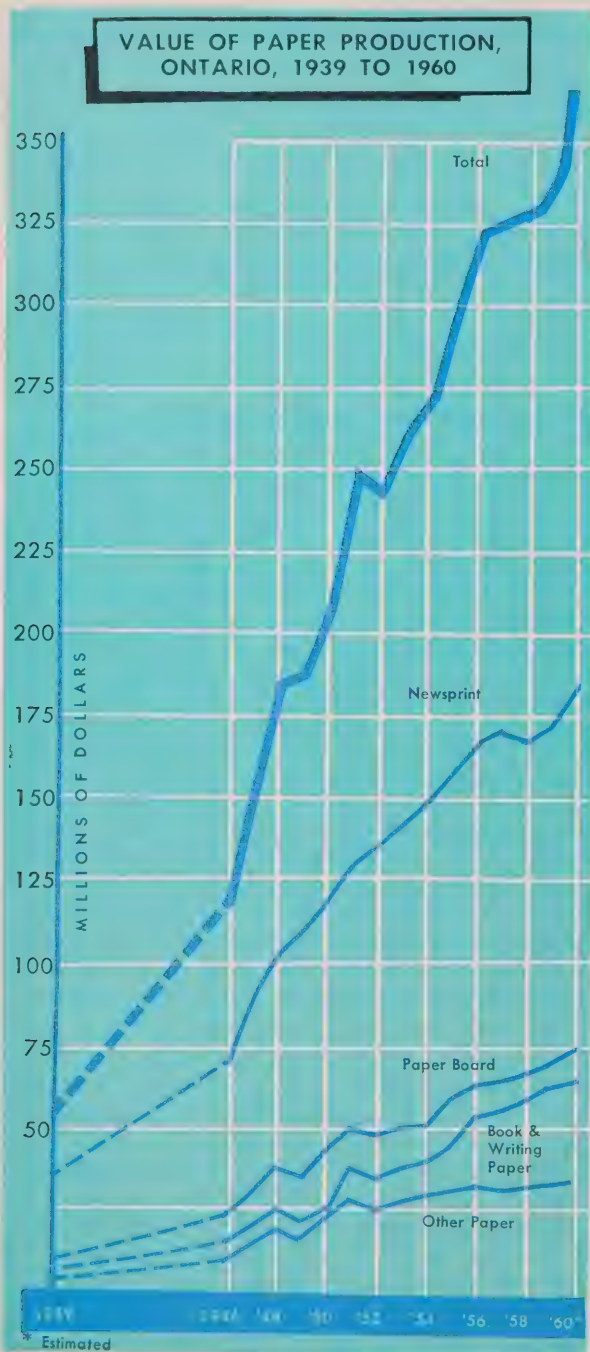
Newsprint accounts for over half the value of paper production in the Province. It is estimated that about four-fifths of this output is exported to the United States. The development of the U.S. demand for Canadian newsprint is, therefore, of paramount importance to our newsprint industry. It is expected, however, that the European markets, which in 1960 absorbed 7.8 per cent of our country's total volume of newsprint exports, will become increasingly important. Projections made in this field by the Royal Commission on Canada's Economic Prospects are set out in the following table.

ACTUAL DEMAND FOR CANADIAN NEWSPRINT IN 1960 AND PROSPECTIVE DEMAND, 1965 TO 1980

	Canada	U.S.	Other Markets	Total
		(Thousands of Tons)		
1960	487	5,260	1,006	6,753
1965	575	5,710	2,025	8,310
1970	690	6,380	2,610	9,680
1975	820	6,930	3,165	10,915
1980	965	7,620	3,830	12,415

For the period 1960 to 1980 these figures show an increase in total demand for Canadian newsprint of 84 per cent. On the basis of these projections and on the assumption that Ontario's share of Canadian newsprint supply will remain constant, the volume of our Province's newsprint production in the year 1980 may be expected to stand at 2.9 million tons as compared with approximately 1.6 million tons in 1960.

Of the kinds of paper produced in Ontario, paperboards and book and writing paper rank next to newsprint in importance. Together they account for almost 40 per cent of the Province's paper production. Since 1946, the





Country - Great Lakes Paper Company Limited

Pulp and paper mill of the Great Lakes Paper Company Limited, Fort William. The annual production value at Ontario's pulp and paper industry is approaching the \$350 million mark.

rate of increase in their production has been even higher than that of newsprint.

PRODUCTION OF NEWSPRINT, PAPERBOARD AND BOOK AND WRITING PAPER IN ONTARIO, 1946 AND 1960

	Volume			Value		
	1946	1960*	% Increase	1946	1960*	% Increase
	(000's of Tons)			(\$000's)		
Newsprint.....	1,073	1,612	50.2	71,841	187,000	160.3
Paperboard.....	310	564	81.9	21,332	75,000	251.6
Book and Writing Paper	119	260	118.5	16,628	66,000	296.9

* Preliminary estimates

A further stage in manufacturing is represented by the *paper-using industries*, which produce a great variety of products, such as boxes, bags, roofing paper, paper containers, tags, writing pads and envelopes. Most of the 217 establishments in this category are located in Southern Ontario. In 1958, they employed 15,729 persons, paid \$57.9 million in salaries and wages and had a gross value of production of \$269 million or 54.3 per cent of the Canadian production figure for this industrial group. The growth of these industries in Ontario is demonstrated by the fact that in 1958 their gross value of production was more than two and one-half times the 1946 figure of \$94 million.

Ontario's *lumber industry* comprises the production of sawn lumber, shingles, laths, ties and some other sawn products. Its gross value of production was \$58 million in 1958, 40 per cent higher than in 1946. In the past decade there have been fluctuations in volume as well as value of output. In recent years a number of wood substitutes have been brought on the market, increasing competition for the lumber as well as for the wood-using industries and prompting them to expand their research and promotion activity. As a result, many multi-purpose and decorative wood products are now available to the building trade. Modern techniques and bonding processes make it possible to use small pieces of wood which formerly were discarded as waste. By adapting their products to changing tastes and consumer habits, these industries continue to occupy an important position in our Province's economic structure.

Of the four main groups of forest-based industries in Ontario, the *wood-using industries* rank second with respect to gross and net value of production. In 1958, they produced goods valued at \$278 million, an increase of 160 per cent over the 1946 level of \$107 million. The significance of these industries is also demonstrated by the fact that they provide employment to more persons than any of the other main groups. The 1958 employment figure for this group was 27,308—higher than that for the pulp and paper industry and the lumber industry together—while \$87 million was paid out in salaries and wages. The principal components of this group are the furniture industry, and sash, door and planing mills. The furniture industry in particular has experienced a remarkable growth in the past decade. Its gross value of production

has more than tripled since 1946, when it stood at \$48 million.

Ontario's veneer and plywood industry, in 1958, produced goods valued at \$17.7 million. It has expanded rapidly since 1952, when its gross value of production amounted to \$10.4 million. This industry puts the poplar species, which are abundantly available in our Province, to good use by converting them into valuable panels of structural wood.

Operations in the Woods

Basic to the aforementioned industries are the *operations in the woods*, which include all activities connected with the timber-crop harvest, such as cutting, logging and transportation over forest roads or down the streams and rivers to the processing plants. In 1958, an estimated 11,400 persons (on a man-year basis) found employment in Ontario's forests, earning \$58 million in salaries and wages. The value of forest output in that year was estimated at \$110 million. This was substantially below production in some previous years. Several factors contributed to the decline. When, in 1956, newsprint production rose considerably, a further increase at the same rate was anticipated and cutting programs were accelerated correspondingly. As actual demand proved to fall short of expectations, pulpwood inventories reached above-normal proportions. Due to this development, cutting in 1958 was drastically reduced, resulting in the aforementioned lower production and employment figures. The value of primary forest production was also unfavourably affected by a decline in pulpwood prices, amounting to some 30 per cent for peeled and about 16 per cent for rough cordwood. Preliminary estimates for 1959 and 1960 indicate increases in wood cut of 12 and 9 per cent respectively, due to growing demand for paper and paper products.

Until some years ago wood-cutting operations were carried out mainly in the fall and early winter. Transportation of the wood from the cut-over areas to the processing plants, railway sidings or rivers, took place in January and February, when the soil was frozen and the hard surface facilitated skidding, hauling and other timber-moving activities. In recent years, the seasonal character of forest operations has become less pronounced. Better and more durable all-weather forest roads and increasing mechanization have made it possible to start cutting in the summer. The use of mechanical equipment has been encouraged by the rising wage-levels. The power saw has replaced the bucksaw; bulldozers, snowmobiles, heavy diesel trucks, tractors and mechanical loaders have considerably reduced the amount of man-handling of wood. River-drive is still used where possible, since it is by far the least expensive mode of wood-transportation. In Ontario some 15 million tons of wood are moved annually from stump to mill.

The foregoing facts show the significance of forestry



Courtesy—Ontario Department of Travel and Publicity.

Timber drive in Northwestern Ontario, near Fort Frances. The forest-based industry is a cornerstone of the economy in the Province's northland.

and the forest-based industries in the Province's economy. It is evident that the protection and judicious management of our forest resources are of primary importance for the continued prosperity of these industries. Unlike our minerals, our forests constitute a renewable resource and as such are a permanent source of raw materials for our pulp, paper and lumber industries. However, their renewal requires time and it is self-generating to a limited extent only. It can be furthered by proper care, protection and removal of overmature trees and undesired species. On the other hand, ruthless cutting and general neglect may easily lead to an excess of depletion over re-growth and in the long run to denudation, or substitution of commercially valuable species by "weed-trees" and useless shrubs. The transformation of dense forest areas into corroded wastelands in some countries bordering the Mediterranean and in many other parts of the world should be a warning to the present and future generations. The

Ontario Government is well aware of the necessity of maintaining a comprehensive forest-management policy. Since most trees of the species which are in general demand by the forest industries require 80 or more years to mature, present decisions and regulations have to take into account immediate interests as well as those of several future generations.

Forest Protection

For many years, forest protection has accounted for the bulk of the total net ordinary expenditures of Ontario's Department of Lands and Forests. In recent years, outlays for timber management and reforestation have become increasingly important; in fact, net ordinary expenditures for these purposes have almost tripled during the past decade. In the five-year period 1956-57 to 1960-61, net ordinary expenditures for forest protection totalled \$34.8

million and those for timber management and reforestation together \$30.9 million.

Fire, insects and disease are estimated to account for about one-quarter of the total depletion of our forests and, together with natural mortality, annually destroy a volume of timber about equal to that used by the pulp and paper industry. This accentuates the need for an effective forest protection service. To prevent and combat forest fires, a large fire-fighting organization is ready for immediate action at all times, particularly during the fire season (from April to November). It is equipped with modern devices such as radar for the detection of lightning storms, mobile radio stations and many thousands of hand pumps and portable power pumps. For purposes of fire-reporting and the direction of fire-fighting activities, use is made of an extensive system of communications, operated by the Ontario Department of Lands and Forests. Its telephone lines total over 1,000 miles in length; its radio communication system is one of the largest of its kind in the world (exclusive of radio networks for military purposes) and is equipped with more than 1,600 stations, many of which are portable, while others are installed in fire towers, aircraft and patrol vessels. Good results have been obtained in localizing fires by water-dropping from the air. Following successful experimentation, all Department aircraft have been outfitted with rotating tanks.

The effectiveness of modern detection and fire-fighting methods is demonstrated by the fact that despite the 956 fires in 1960, the area burned measured only 31,386 acres. The average area per fire in 1960 was 33 acres which compares favourably with the annual average of 154 acres per fire over the past 35 years. Over four-fifths of the destruction took place in July, 1960.

The protection of our forests from insects and diseases is of a different nature. It is a well-known fact that over-mature trees are more susceptible to damage by insects and fungi than those that are mature or not yet fully developed. Sound forest management, in particular the culling of over-mature trees and the maintenance of healthy forest stands, therefore offers a substantial contribution to the reduction of loss from these causes. In addition, staff of the Ontario Department of Lands and Forests continually survey forest insect and disease conditions and carry out control operations to suppress any potential danger to our forests from these destructive forces.

Forest Management

In order to give maximum effect to the Government's policy of sound forest development, a management plan has been prepared for each of 125 management units covering about 210,000 square miles. Seventy-seven of these are Crown management units, encompassing 120,000

square miles, while the remaining 90,000 square miles are contained in 48 company management units. The Crown Timber Act, 1952, contains a number of regulations which ensure the co-operation of companies holding Crown timber lands under licence. For example, section 23 (a) of the Act stipulates that "Every licensee shall furnish to the Minister . . . an annual plan for the cutting operations to be conducted by him . . . together with a statement of the measures to be taken by him from time to time during the term of his licence to promote and maintain the productivity of the areas cut over in accordance with such annual plan". Approval of the annual plan by the Minister is required.

Completion of Ontario's forest inventory in 1958, has paved the way for more intensified forest management. Since 1946, when this project was initiated, 285,000 square miles have been photographed from the air, while field cruises on nearly 139,000 square miles provided additional information. From the data compiled, a large number of maps and inventory reports covering 22 administrative districts have been prepared. In 1960, 12,700 square miles have been re-photographed and identical or larger areas are proposed to be covered annually in subsequent years, to keep the inventory up to date.

In view of the importance of maintaining or increasing the productive capacity of our Provincial forests, special staff within the Forest Management Division of the Ontario Department of Lands and Forests were directed to concentrate their efforts on a particular project, named "Project Regeneration". A major object of this program is the re-establishment of commercially valuable tree species in cut-over and burned areas, with special emphasis on red and white pine, jack pine, spruce and yellow birch. To this end, inferior trees and shrubs are exterminated by spraying with herbicides, and cutting is planned in such a way that the most desired tree species get the best possible chance to subsist and regenerate. Since the inception of this intensified regeneration program in 1956, silvicultural treatment has been given to about 46,000 acres. A considerable amount of direct seeding has also been carried out.

Reforestation is another means by which the Ontario Government contributes to the development of our forest resources. Of the 49.5 million young trees, supplied by the Province's tree nurseries in 1960, 31.3 million were planted on Crown lands and 4.2 million on lands managed in co-operation with counties, townships and conservation authorities. Approximately 14 million trees were distributed to private land owners. During the past three years, eight new tree nurseries were established in Northern Ontario. Two of these—one near Dryden and the other in the Swastika area—each have a possible ultimate

capacity of 10 million trees per annum. Once these new additions are in full production, the total annual capacity of the Province's nurseries will be 80 million trees. A production of 57 million trees is anticipated for the year 1961.

Essential to the opening up, development and protection of any forest area is a good forest road system. In privately-owned forests and on licensed Crown lands the companies operating the areas have their own road construction programs. On unalienated Crown lands the Ontario Government builds roads under an Access Road Construction Program. In view of the fact that most new access road construction is now covered by a Federal-Provincial roads-to-resources program, the Department of Lands and Forests confines itself mainly to the maintenance of existing forest roads.

Although in the early fifties, separate access road programs were administered by the Departments of Lands and Forests and of Mines, the variety of interests served by these roads made it desirable to co-ordinate the efforts. Therefore, in 1954, a committee in which several Departments were represented, was assigned the task of formulating access road building policies. In 1958, access road construction was further accelerated when several new projects were initiated as a joint Federal-Provincial undertaking. An agreement, signed in 1959, involves a proposed expenditure of \$15 million for this purpose by March 31, 1967. The costs will be shared equally between the Province and the Dominion; in some cases private companies making extensive use of particular roads will participate.

Six major projects have been approved under the agreement so far:

1. Foleyet to Chapleau—60 miles. About 30 miles have been completed and work on the remaining 30 miles is proceeding.
2. Nakina via Cavell to Terrier Lake—about 50 miles. This road has been completed recently.
3. Spruce River Road—74 miles. Nearly three-fifths of this road has been built.
4. Savant Lake south to Highway No. 17—90 miles. Contracts for about three-fifths of this distance have been awarded and work is progressing. Some 15 miles have already been completed.
5. Minaki south to Highway 596 at Pellatt—15 miles. This project is completed.
6. Goldpines to Uchi Lake—90 miles. The present sub-standard road between these two points will be upgraded.

Not only will these roads stimulate the development of extensive forest areas and mineral deposits, but they will also benefit trappers, tourists and sportsmen. In addition,

they will facilitate further exploration of the rich resources located in the northern parts of our Province and thus contribute to the continuing growth of our economy.

FISHING, TRAPPING AND FUR FARMING

Commercial Fishing

Canada's fresh-water fishing industry is believed to be the largest in the world. Within Canada, Ontario ranks first among the provinces in this area of economic activity. Ontario's fisheries accounted for about 52 per cent of the landed value of all Canadian inland fisheries in 1958. The value of the annual output of the Province's fishing industry is subject to considerable fluctuations; in 1958 it amounted to \$8,184,000 and in 1959 to \$5,474,000. For 1960 it was estimated at \$5,408,000.

Fishing is the mainstay of local income in a number of small communities on the shores of the Great Lakes. In others—although not of major significance—it has acquired a permanent place among several other forms of economic endeavour. For some Indians and people with limited opportunities for other occupations near the smaller inland lakes in the North, fishing forms a welcome means of livelihood. In 1959, 3,527 persons were employed in the primary operations of commercial fishing. These workers include commercial fishing licence-holders and their employees.

The Province's fishermen, like its farmers, are largely self-employed or depend upon the profits of the operations they take part in rather than on assured wages. Over 80 per cent of fishermen reported by the 1951 Census were working on their own account or as partners, and only 15 per cent as wage earners.

In 1959, the value of the boats, gear and shore installations used by our commercial fisheries was \$10,557,000—85 per cent higher than in 1948. Thus there was an average investment of \$2,993 per worker, as compared with \$1,523 ten years earlier.

PRODUCTION OF COMMERCIAL FISHERIES IN ONTARIO, SELECTED YEARS 1946 TO 1959

	Quantity Landed	Value of Products ¹	Average Production Value per Worker ¹
	('000 lb.)	(\$000's)	(\$)
1946.....	33,000	6,297	1,484
1953.....	44,839	7,916	2,079
1957.....	51,112	7,928	2,586
1958.....	47,172	8,184	2,538
1959.....	48,992	5,474	1,552

¹In conformity with the Dominion Bureau of Statistics procedure, the value of products is computed by adding 12½ per cent to landed value.

The general trend in fishing has been one of more production by fewer men. Fish populations are subject to drastic changes over short periods of years for environmental and biological reasons. As a result, the annual production figures of different districts and species show considerable deviations from the general trend. In 1959, commercial fish production again stood at a high level; it experienced a moderate increase in weight from 1958.

The total catch was 48,992,000 pounds or 48 per cent higher than in 1946. The 1959 value showed a decline of about 33 per cent from the previous year. This was due mainly to decreases in the catch of the premium-priced species and increases in the production of perch, causing the price of the latter to drop to about one-third of its 1958 level. The effects of this development were felt most severely in the Lake Erie district, where almost two-thirds of the catch (by weight) consisted of perch.

It should be noted that the average production value per worker is not a reliable measure for estimating the income of the professional fisherman. Since it includes the low output of those who depend only partly on fishing, it understates the incomes of the workers who derive their chief income from this form of economic activity. Some 400 fishermen reported an annual non-fishing labour income averaging \$1,220 at the time of the 1951 Census, while those who farmed had an average cash income of \$1,293 from that source.

In 1959, the most important fish landed, by weight, was perch, which accounted for about 41 per cent of the total catch. Smelt was in second place, yellow pickerel in third and whitefish in fourth. The most noticeable trends in the species of fish caught over the past decade have been an increase in the landed weight of yellow pickerel and a decrease in lake trout.

The physical nature of the individual lake influences the type of fishery in which fishermen specialize. Lake Erie and Lake St. Clair are relatively shallow and warm; such conditions favour perch and yellow and blue pickerel, which require a shallow and fertile habitat. These three species of fish accounted for 66.6 per cent of the quantity, and 74.3 per cent of the value of fish landed in Lake Erie in 1959.

Whereas Lake Erie's greatest depth is 210 feet, Lake Superior's deepest spot is 1,302 feet. Depth and coldness tend to make a lake suitable for whitefish and lake trout. Although, in Lake Superior in 1959, lake trout production declined 37 per cent and whitefish production was down 26.2 per cent from 1958, these two species together accounted for 45.4 per cent of the value of that lake's catch. One of the major causes for the decline of lake trout in Lake Superior is the depredation by the sea lamprey.

Yellow pickerel, perch and whitefish were the most important species in the Province in terms of value. Yellow pickerel brought 44.7 per cent of the landed value of the Lake St. Clair catch, and 48.3 per cent of the Northern Inland Waters catch. Perch accounted for 53.5 per cent of the value of the Lake Erie catch. Whitefish brought 35.5 per cent of the landed value in the North Channel, 40.1 per cent of that in Lake Ontario and 42.3 per cent of the Georgian Bay catch. The above species represented the highest values for each of these fishing grounds, respectively.

The following table shows the value of individual fish species in the fishing districts of the Province.

LANDED VALUES AND PER CENT OF EACH AREA'S CATCH OF MAJOR SPECIES BY FISHING DISTRICTS, 1959

Area	Species	Value \$	Per Cent	Area	Species	Value \$	Per Cent
Lake Ontario	Whitefish	157,664	40.1	Lake Superior	Lake Trout	97,632	25.9
	Yellow Pickerel	52,835	13.4		Herring	85,003	22.5
	Bullheads	40,886	10.4		Yellow Pickerel	78,485	20.8
					Whitefish	73,563	19.5
Lake Erie	Perch	1,176,343	53.5	N.I.W. ¹	Yellow Pickerel	526,791	48.3
	Yellow Pickerel	456,755	20.8		Whitefish	312,694	28.7
	White Bass	210,841	9.6		Sturgeon	82,263	7.5
Lake St. Clair	Yellow Pickerel	45,769	44.7	North Channel	Whitefish	24,278	35.5
	Catfish	13,654	13.3		Northern Pike	20,306	29.7
	Sturgeon	11,640	11.4		Yellow Pickerel	12,029	17.6
S.I.W.	Bullheads	18,982	35.3	Georgian Bay	Whitefish	28,806	42.3
	Carp	9,454	17.6		Yellow Pickerel	28,637	42.0
	Sturgeon	8,885	16.5		Sturgeon	2,521	3.7
Lake Huron	Chub	216,453	42.2				
	Whitefish	139,689	27.2				
	Yellow Pickerel	109,390	21.3				

¹Southern Inland Waters.

²Northern Inland Waters.

The changing importance of individual species of fish and the contraction of the labour force are associated with the changing importance of different fisheries districts. Among the species caught, yellow pickerel has become more prominent, particularly in the northern lakes and fishing districts of the Province. In 1959, yellow pickerel ranked first, second or third in dollar value in the fishing districts, with the exception of the Southern Inland Waters; for the Province as a whole it occupied the first place in this respect.

In the geographic distribution of fishing activity the most marked general post-war trend has been the increase in the quantity of fish caught in Lake Erie. In that district, fishing is an industry with larger boats and a smaller labour force per \$1,000 of production than in other fishing grounds. The Northern Inland Waters have also been notably on the uptrend in terms of landed weight and value. In 1959, Northern Inland Waters fishing accounted for 15.5 per cent of the weight and 22.4 per cent of the value of output of all fisheries in the Province.

The following were the catches and production values by fisheries districts in 1959.

LANDINGS BY QUALITY AND VALUE FOR FISHING DISTRICTS, 1959

Fisheries District	Quantity Landed ('000 lb.)	Landed Value (\$000's)	Per Cent of Total Quantity Landed %	Per Cent of Total Landed Value %
Lake Erie.....	31,597	2,200	64.5	45.2
Northern Inland Waters.....	7,617	1,090	15.5	22.4
Lake Superior.....	3,850	377	7.9	7.7
Lake Huron.....	2,203	514	4.5	10.6
Lake Ontario.....	2,052	393	4.2	8.1
Lake St. Clair.....	845	102	1.7	2.1
North Channel.....	171	68	0.3	1.4
Georgian Bay.....	225	68	0.5	1.4
Southern Inland Waters.....	432	54	0.9	1.1
Total.....	48,992	4,866	100.0	100.0

The greatest portion of fish production is exported from the Province. Much of it goes to the New York market, and also to Montreal. Part of the fish shipped to Montreal is exported from there to the United States. Many shipments from Northwestern Ontario go to Winnipeg and to Chicago and other American points.

Ontario fishermen take an active interest in new methods and techniques. The introduction of nylon gill nets a few years ago substantially reduced the man-hours necessary in fishing operations because they are not subject to deterioration through bacterial action and do not have to be dried. Ice-making machinery is now widely used; it replaces the winter harvesting of ice and makes it possible to market a fresher product more efficiently. Depth-sounding devices enable fishermen to find their nets easily and to choose their best locations with a minimum loss of time. Presently, fishermen are experimenting with a new type of trawl net in Lake Erie, which will contribute to more efficient fishing. Fishermen now have access to a growing store of scientific information about fish and their movements, gathered for them by Government scientists.

Catches of lake trout, as noted above, have been greatly reduced in the Upper Great Lakes by the sea lamprey. This predator is an eel that attaches itself to fish and sucks their blood. Since the sea lamprey occurs in both Canadian and United States waters, the campaign to eliminate it is carried out under the direction of the International Great Lakes Fishery Commission. The Ontario Department of Lands and Forests co-operates with the Federal authorities who are conducting the Canadian operations of this program.

As success is anticipated in a few years, the Ontario Department of Lands and Forests is studying the best methods of re-establishing commercial populations of lake trout in both Lake Ontario and Lake Superior. As a contribution to the current rehabilitation program, the Province is committed to releasing 500,000 yearling lake trout or more in Lake Superior annually.

Much work has gone into the development of lampicides, now regarded as the best hope for controlling the pest. These chemicals kill the larvae in the streams where the lamprey hatch. There is also an extensive system of electric weirs to prevent adult lamprey from going upstream to spawn.

Fishermen in a number of locations are organized into local associations that serve them and make recommendations to the Provincial Government. They act in this latter connection through the Ontario Council of Commercial Fisheries and the Lake Erie Fisheries Council. Co-operatives also promote the fisherman's interests through marketing activities and the collective purchasing of gear and supplies.

The inland fisherman is in competition with suppliers of sea fish, animal meats and poultry meat. The sea

fisherman has the advantage of large yields that can be marketed at lower prices than most inland fish. The sea-fishing industry on the Atlantic coast is not very flexible. Its workers have few opportunities to find employment elsewhere or derive additional income from alternative sources. All their efforts go into fishing, which tends to make this industry a more tenacious competitor. Nevertheless, Ontario fisheries have continued to expand their sales. Hard work, modernization, accessibility to large centres of population, wise Government conservation policies and the quality of the fish offered are all factors which enable the fishing industry as a whole to maintain a significant place in the Province's growing economy.

Trapping

The industry which first gave Canada a national identity and economic unity is now of relatively small importance in our highly-developed, industrial economy. However, in 1959, the fur trade still contributed products valued at about \$26 million to the Canadian economy. More than one-quarter of this total (\$7.1 million) came from Ontario—the largest fur producer among the provinces.

The full importance of the fur trade cannot be realized solely by an examination of dollar totals. It is of immense social importance in the northern regions of the Province where it provides the main source of income for Indians whose natural aptitudes particularly suit them for this trade. It also provides bush workers with additional income, which is especially important when economic conditions do not warrant a high level of employment in forestry and the forest-based industries. Another function of the industry is the control of the animal population. Without trapping operations the Province might become overpopulated with certain species of animals which would then destroy and damage much valuable property.

Since its beginnings in the sixteenth century, the fur trade has been characterized by fluctuations. Affected by the caprice of fashions and instability in the supply of animals, the price varies greatly from year to year. For instance, prices for beaver which is still the mainstay of the trapping industry have varied between a low of \$7.52 per pelt in 1935 and a high of \$50.78 per pelt in 1946. In 1960, the average price per beaver pelt was \$11.78.

Statistical records of average prices do not necessarily provide a good economic indicator for the fur trade. In any one year, actual prices received vary greatly about the average; they are established primarily on the basis of the quality of the furs sold. The average price may, therefore, largely depend on the season in which the trappers choose to do their trapping. The Ontario Department of Lands and Forests performs a valuable service by providing information on the relationship between quality and value of pelts and by indicating what seasons are the

most favourable to capture particular species. A program of instruction and education for trappers in the proper methods of handling their raw fur is continuing and a general improvement in the quality of pelts offered for sale by Ontario trappers is evident. This helps the trapper obtain a higher average price for his product.

Beaver accounted for 52.2 per cent of the value of Ontario's 1960 trapline production and consisted of 111,235 pelts selling for a total value of \$1,479,426. Mink was second in importance and the 1960 catch had a value of \$629,852—three per cent more than the 1959 production valued at \$521,345. Other important species in order of value were muskrat, otter, fisher and raccoon.

NUMBER AND VALUE OF PELTS FROM TRAPLINES AND
AVERAGE MARKET PRICES, 1959-1960 SEASON

Species	Number	Value	Average Price	Peak Price
		\$	\$	\$
Beaver	111,235	1,479,426	11.78	32.00
Mink	47,536	629,852	6.67	17.00
Muskrat	415,621	336,653	.73	1.32
Otter	6,321	163,714	27.42	48.50
Fisher	3,020	57,984	8.94	50.00
Raccoon	19,449	39,092	2.38	3.50
Other	37,911	124,453	3.28	—

The Ontario Department of Lands and Forests supervises trapping activities in the Province. Each trapper is granted exclusive rights in a specified trapping area, which eliminates competitive trapping. The animal population is controlled in each area by establishing annual quotas for each of the species. In addition, stocking operations are carried on in order to increase the population of certain species of animals in areas where they are scarce. In recent years, special efforts have been made to increase the beaver population in the James Bay area and to make marten more plentiful throughout Ontario.

Fur Farming

The first known fur farm in Ontario was a fox farm established in 1905, but fur farming was of little importance until the late 1920's. It has grown in importance greatly since that time and in 1960, Ontario's fur farm production was valued at \$4,451,000, a substantial increase over the output in 1959 of \$4 million and well over the \$4.1 million recorded in the previous peak year 1956. In 1960, 31 per cent of the pelts produced in Ontario came from fur farms; however, these accounted for 61 per cent of the total value of fur production.

Mink is by far the most important crop of the fur farms, accounting for 99.6 per cent of the value of production. Chinchilla accounts for most of the remainder while the value of fox pelts produced in 1960 declined to only \$4,473. In pre-war years, the fox population was very important to the industry, but after World War II changing fashions led to a reduction in the demand for

long-haired pelts and efforts were concentrated on the production of short-haired varieties.

The number of fur farms in Ontario has been substantially reduced from the 1939 high of 1,920; in 1960 there were only 500 licensed farms in operation. Since production has not suffered during this period it is evident that the smaller part-time and marginal producers have abandoned the industry, leaving the more efficient, larger producers in operation.

NUMBER OF LICENSED FUR FARMS, ONTARIO,
SELECTED YEARS 1939 TO 1960

Year	Number of Farms
(as at December 31)	
1939	1,920
1946	1,502
1951	914
1952	769
1953	631
1954	549
1955	529
1956	542
1957	520
1958	513
1959	495
1960	500

Note: The number of fur farms is based on the number of Fur Farmers' Licences issued by the Ontario Department of Lands and Forests. Farms raising chinchilla and nutria exclusively, do not require licences and, therefore, are not included in the total. However, these account for only a small percentage of the total value of production.

The fur trade as a whole has always been heavily dependent on the export market. In 1959, almost 90 per cent of Ontario's value of production was exported, the main markets being the United States and the United Kingdom. Consequently, the trapping and fur industry is sensitive to the economic conditions and trade policies of other countries.

The realization that the problems of the fur trade must be solved by a concerted effort, has made the highly individualistic trappers less reluctant to organize. Better marketing techniques, which involve the organization of auction sales, have done much to benefit the trappers. Fur auctions held in North Bay this winter by the Ontario Trappers' Association Fur Sales Service with the active assistance and guidance of the Ontario Department of Lands and Forests were extremely successful.

All licenced fur farmers are members of the Ontario Fur Breeders' Association, Inc., an affiliate of Canada Mink Breeders. They are aided through contributions from fur sales at the auctions and by a \$5,000 grant from the Department of Lands and Forests to further the interests of fur ranching. Contributions to advertising campaigns both in the United States and Canada are aimed at increasing and stabilizing the demand for fur products. A favourable response is expected to be obtained from more emphasis on the Canadian name in selling mink abroad.

The Province encourages any improvements that may benefit trappers and fur farmers and makes its expert

advisory services freely available to the industry. Thus, trappers, fur farmers and government all co-operate in upholding the good reputation which Canadian and Ontario furs have enjoyed in the fashion centres of the world for hundreds of years.

MINING

Ontario ranks first among the provinces in mineral production. Last year, its mines yielded an estimated \$984 million or about two-fifths of Canada's mineral output. This was \$14 million higher than 1959 production and represented an all-time record. The increase over 1959 is mainly attributed to substantial gains in the output of nickel and copper, which more than offset the \$59 million drop in uranium production. Ontario's prominence in the mineral industry is particularly conspicuous with respect to the metallic minerals and structural materials, as is demonstrated by the following statistics.

PRELIMINARY ESTIMATES OF THE VALUE OF MINERAL PRODUCTION BY MAIN GROUPS OF MINERALS IN CANADA AND ONTARIO, 1960

	Canada		Ontario		Ontario as % of Canada
	(\$000's)	% of Total	(\$000's)	% of Total	
Metallic minerals	1,403,988	56.7	825,375	83.9	58.8
Structural materials	314,958	12.7	125,017	12.7	39.7
Non-metallic minerals	194,860	7.9	24,776	2.5	12.7
Fuels	562,435	22.7	8,857	0.9	1.6
Total	2,476,241	100.0	984,025	100.0	39.7

Ontario is Canada's leading province in the production of metallic minerals; they account for more than four-fifths of the Province's total value of mineral output. In the field of non-metallics (salt, asbestos, nepheline syenite, gypsum and many other minerals) Ontario ranks second among the provin .

The Province's rich mineral reserves are widely dispersed. The main source of nickel is in the Sudbury district, and exploration is in progress near Timmins and in northwestern Ontario. Uranium is found in large quantities at Elliot Lake and near Bancroft. Copper is mined at Sudbury, Manitouwadge and in the Temagami area. The main centres of gold production are Porcupine, Kirkland Lake and Larde Lake in northeastern Ontario and the Red Lake area in the northwest. Iron ore is produced in several places (Aukokan, Michipicoten, Marmora, Sudbury District). The development of further large deposits north of Nakiina and near Bruce Lake and the presence of reserves in many other localities indicate a significant growth potential of this major industry. Accounting for about three-quarters of Ontario's value of mineral output, the Northeastern Region is the most important mineral-producing section of the Province. Prominent within this Region is Sudbury District, which

contributes approximately half of Ontario's value of mineral production.

Ontario's mining industry has grown remarkably since World War II. The total value of mineral production quintupled in a decade and a half. The rate of increase was highest for the metallic minerals which in 1960 reached a value of production five and a quarter times that of 1946. The following figures illustrate the increase in each of the four main groups.

VALUE OF MINERAL PRODUCTION BY MAIN GROUPS OF MINERALS IN ONTARIO, 1946 AND 1958 TO 1960

	1946	1958	1959	1960*	Per Cent Change		
	(Thousands of Dollars)				1960/1946	1960	1959
Metallics	157,044	629,295	806,143	825,375	425.6		2.4
Non-metallics	5,259	20,356	25,246	24,776	371.1		-1.9
Fuels	4,948	8,598	9,711	8,857	79.0		-8.8
Structural Materials	24,293	131,352	129,662	125,017	414.6		-3.6
Total	191,544	789,601	970,762	984,025	413.7		1.4

*Preliminary.

Ontario's five top-ranking minerals are nickel, uranium, copper, gold and iron. In 1960, with an output of \$766 million, they accounted for more than three-quarters of the total value of mineral production in the Province.

Our mineral industry provides employment for almost 60,000 persons. This is about three times the number estimated to be engaged in forest operations in the Province. As is to be expected, the proportion of the labour force employed in mining, on a regional basis, is highest in Northeastern Ontario. In that Region, one out of every five gainfully employed persons earns a living in the mining industry. In Sudbury District the proportion is one to four.

Indirectly, the mining industry creates employment for many people in transportation, construction, smelting, refining and secondary manufacturing. In mining, large amounts of capital are often required to bring plants to the production stage. For example, the total investment since 1953 in Ontario's uranium industry is estimated to be in excess of \$350 million. The many millions of dollars invested in the mining industry each year naturally have a stimulating effect on the economy in general and on the capital goods industries in particular.

VALUE OF DOMESTIC EXPORTS FROM CANADA, 1960

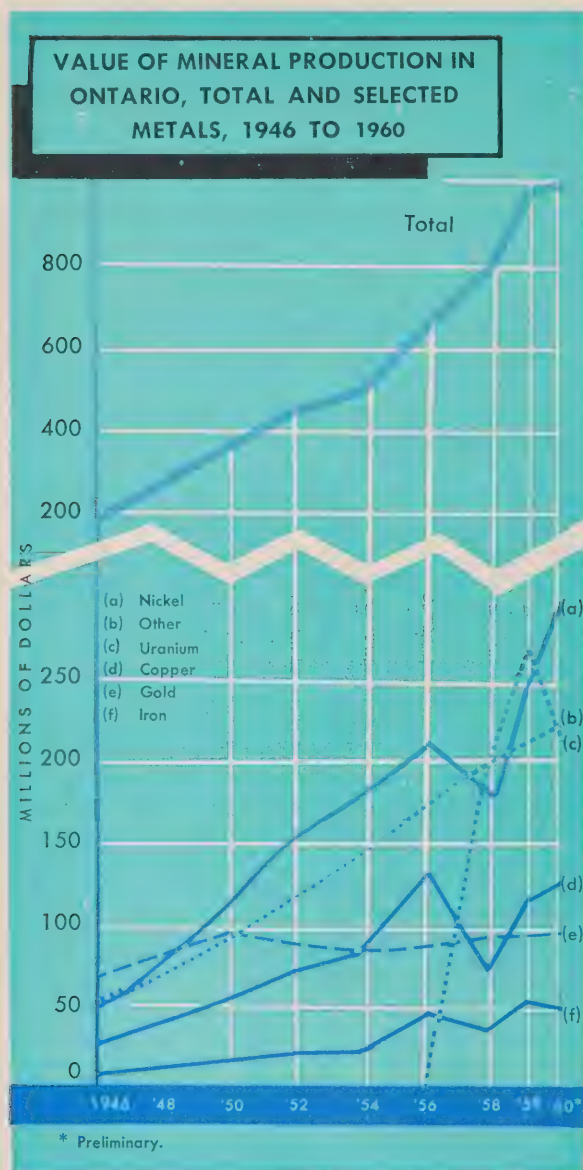
Minerals* and their products.....	\$2,167 million
Wood, wood products and paper.....	\$1,592 million
Agricultural and vegetable products}	\$1,151 million
Animals and animal products }	
All other products.....	\$ 356 million
Total domestic exports	\$5,266 million

*Does not include gold.

The mining industry also plays a very significant role in our external trade. Not only does the direct exportation of minerals earn our country a large credit on its trade balance, but the many industries based on mining also

make an important contribution to our exports. In 1959 minerals and their products outranked agricultural products and forest products with respect to value of exports.

Since Ontario accounts for more than two-fifths of the value of Canada's mineral production and more than half of the country's production-value of manufactured mineral products, it seems reasonable to assume that our Province has contributed at least 40 per cent of the nearly two billion dollars in minerals and mineral products exported from the country in 1959.



Metallic Minerals

Nickel: In 1960, the value of nickel production in the Province rose to an all-time record of \$293.3 million. Thus, the industry experienced a complete recovery from 1958, when due to a major strike in the Sudbury area and a comparatively low level of activity in the American steel mills, output stood at \$177.2 million. Several factors have contributed to this development. Improved economic conditions generally, increased production of the United States steel industry and wider application of nickel in the manufacturing industry resulted in a 25 per cent rise in free world demand.

Since the end of World War II, the value of Ontario's nickel output has increased more than six-fold and in 1960 represented nearly 94 per cent of Canada's and an estimated 75 per cent of the free world's production of this mineral. About 60 per cent of our nickel is exported to the United States, where it is widely used by the steel industry in the manufacture of stainless steels and other alloys. Defence production in 1955 and 1956 is estimated to have absorbed about 40 per cent of the world's nickel supply. In 1957 and 1958, defence and stockpiling requirements declined sharply, so that more nickel became available to civilian markets.

The outlook for the future is encouraging. Concentrated research and promotional efforts are expected to lead to an increased use of nickel in the civilian sector of the economy. Nickel producers are likely to benefit also from the increasing use of jetliners for civilian aviation. A rising absorptive capacity for this metal, foreseen in European markets, constitutes another prospective stimulant for the industry.

Sudbury is Ontario's most important nickel producing area. The International Nickel Company of Canada, Limited plans to have a new mine—the Clarabelle Open Pit—ready for production in the latter part of 1961, to replace tonnage now being extracted from its other nearby mines. Possibilities for nickel mining elsewhere are also being investigated. Exploratory drilling and development work are taking place on a nickel prospect south of Timmins and in Northwestern Ontario on nickel properties near Werner Lake (northwest of Kenora) and in the Gordon Lake area. In the latter undertaking, Faraday Uranium Mines is financially interested, thus indicating a desire to find a broader basis for its operations.

Uranium: The advancement of nuclear science has sparked the development of uranium mining and stimulated its phenomenal growth. In a chemistry book, written in 1875 by a German professor, Dr. Herman Vogel, uranium was described as "a rare metal whose combinations play a great part in colouring materials". Modern warfare tactics have radically changed this conception.

In Ontario, commercial production of uranium commenced in 1955, when the output was valued at \$487,000.



Courtesy—Denison Mines Limited.

Aerial view of the Denison mine at Elliot Lake, the largest single uranium mine in the free world.



Courtesy—Faraday Uranium Mines—K. Wyatt, photographer.

The Faraday Uranium plant at Bancroft.

In the following years, production increased sharply to \$82.9 million in 1957, and to a record \$262.9 million in 1959. This resulted in uranium replacing nickel as the Province's top-ranking mineral. Developments since 1959 have required far-reaching re-adjustments. In spite of the decline which resulted, Ontario's uranium mines in 1960 again turned out large quantities of the metal, valued at \$209.6 million.

Of Canada's total uranium reserves, assessed at about 377 million tons of ore, the Blind River - Elliot Lake area accounts for an estimated 356 million tons and the Bancroft area for 11 million tons. The Blind River - Elliot Lake ores are of a remarkable uniformity of grade and continuity of mineralization. Elliot Lake, unknown only about half a decade ago, developed in a short time into a community of considerable size and importance. A similar development, though on a smaller scale, took place in the Bancroft area, where, on the Bicroft townsite, more than 200 houses were constructed.

During and immediately after World War II, uranium demand for defence purposes far exceeded world supply. In order to spur uranium production and exploration, the United States Government, through its Atomic Energy Commission, contracted to purchase all uranium which could be produced at a previously established price. Most contracts ran to 1962 or 1963. This eliminated marketing risks for the producers, with the result that a number of companies made resolute efforts to get uranium mines into production without delay. In a short span of time output rose to record levels and reached a stage where world supply was considerably in excess of the need for the metal. A substantial build-up of uranium reserves resulted. Part of the uranium scheduled to be shipped to the United States has been diverted to the United Kingdom with the consent of all parties concerned. Furthermore, the United States has revised its policy and does not now want to exercise options it held to buy additional quantities of Canadian uranium after 1962-1963.

To avoid a sudden sharp decline in 1962 or 1963, the Federal Government initiated a plan under which deliveries under contract will be extended over the period 1960 to 1966. Although, in the second half of the present decade, the civilian demand for uranium will undoubtedly have risen above present levels, it may not be sufficient to replace the cut-back in military requirements. Nuclear building programs in many countries have been slower in developing than was expected. Surpluses of coal and oil have had the effect of making the construction of nuclear power reactors seem less urgent. Furthermore, lower prices of these fuels have increased the discrepancy between the cost of nuclear power and energy produced by means of conventional methods.

In view of the uncertain immediate prospects, a consolidation of the industry has taken place and in several instances production has been curtailed. A few of the

larger mines have purchased delivery contracts of others that have discontinued operations. This has been accompanied by a contraction of the labour force in the uranium mining centres of Elliot Lake and Bicroft. In order to mitigate the resulting detrimental effects to the local economies, the Province is taking measures aimed at a diversification of local economic activity and has designed a program involving the provision of interest-free loans.

Although the development of nuclear energy production for industry may not be as rapid as was originally expected, it is most likely that growing quantities of uranium will be required for this purpose. The implementation of nuclear energy programs in Canada will increase domestic consumption. In September, 1958, the first shipment of uranium metal left the Eldorado Mining and Refining plant at Port Hope, Ontario. The metal was destined to be used in the atomic reactors at Chalk River, Ontario. Canada's first atomic power plant, now under construction near Rolphton, Ontario, is expected to commence operations in 1961. A large-scale nuclear power plant is scheduled to start operations by 1965, near Kincardine, Ontario. It is expected that these will be followed by several other plants in subsequent years.

It seems probable that the export market will remain the main outlet for our uranium industry. The United Kingdom—in addition to contracts for 21 million pounds included in the stretch-out arrangements—has already in 1957 indicated intentions of purchasing further large quantities to be delivered in the period 1963 to 1966. Negotiations now under way are expected to lead to a firm agreement. Sales for limited quantities of uranium-oxide have been contracted with the West German Republic, Switzerland and Japan. Uranium demand may be further stimulated by use of the metal in alloys, for example in making steel more fatigue and corrosion resistant. The application of nuclear energy for vehicle propulsion and domestic heating may also hold promising possibilities.

Encouraging as these developments may be, they are not expected to bring about an absorption of present over-capacity in Ontario's uranium industry within the next few years. The high level of production attained in recent years is not likely to be equalled within the present decade. Nevertheless, the trend toward new uses for the metal, technological advances and the determination and flexibility of the industry's leaders indicate that uranium is here to stay as a contributor to Ontario's mineral output.

Copper: The factors which caused an increase in output of nickel also influenced the Province's copper production which rose from 376.5 million pounds in 1959 to an all-time high of 408.2 million pounds in 1960, valued at \$122.4 million. This represented about half of the country's output of copper.

Sharp fluctuations in the price of copper have strongly affected the value of copper production in recent years. Between early 1954 and March, 1955, the price of this

metal doubled from about 28c. per pound to 55c. per pound. At the end of 1956 and during 1957, the demand for copper declined while production continued at a high level. An over-supply developed and the price dropped to a low of 24c. per pound in June, 1958. Although the market has strengthened since, the six-month strike in the United States copper industry in 1959 raised copper prices only slightly, indicating an over-supply situation which still exists at present. Political uncertainty in the Congo and Rhodesia—both major copper producers—has resulted in some upward pressure on world copper prices. The fact that several new copper properties are under development demonstrates confidence in the future of the industry.

While in some countries copper is mined in open-pit operations, Canadian copper mines are generally of the underground type. Although large capital outlays and the sinking of costly shafts are required before the ore can be brought to the surface, a comparative advantage of Ontario's method of copper mining is that other minerals are mined in conjunction with copper. For example, in Ontario's main copper-mining centre, near Sudbury, copper and nickel are about equally distributed in the ore which also contains other minerals. This tends to diminish the risk and to cut down the cost normally involved in the mining of a single mineral. On the other hand, however, it reduces the flexibility of production policy for each individual mineral, since an increase or decrease in the production of one mineral has the same effect with respect to the other minerals contained in the ore.

In recent years a significant development in copper mining has taken place in the Manitouwadge area, north of Lake Superior, in the Thunder Bay District. Copper is being mined there in conjunction with zinc and silver. In 1959, the two producing mines accounted for almost 15 per cent of the Province's copper production. Facilities allow for expansion to a combined daily capacity of 6,000 tons of ore. Estimated reserves in the area are sufficient to permit production at this rate for many years. Since 1953, when production started, Manitouwadge has developed into an area which now provides a livelihood for some 2,000 people. The town, with well-constructed homes, schools and hospital facilities, offers its inhabitants most of the amenities enjoyed by persons living in the more settled areas of the Province. The townsite is designed to accommodate 6,000 people.

Development is also taking place in the Timagami area where exceptionally high-grade copper ore was recovered from surface pits in 1956. On Timagami Island a recently completed mill is operating at a rate of about 150 tons per day. In the Blind River area a uranium mill was converted to copper production; operations commenced early this year. In the Porcupine an old copper property is being brought back into production. A copper mine at Kashabowie, west of the Lakehead, which dis-

continued production in 1958 due to low copper prices, resumed operations in 1960 after reorganization.

A large part of our copper is exported, mainly to the United States and the United Kingdom. The metal is widely used, particularly for electrical and industrial equipment, building construction, motor vehicles, communications and defence purposes. Canada's leading copper producers have formed an organization called the Canadian Copper and Brass Development Association, with the aim of promoting and developing the use of copper and its alloys.

It is expected that—during the next few years—the demand for copper will lag behind the expansion of world copper mining capacity which is the result of new developments in several countries. Companies may, therefore, well continue for some years, to cut down production deliberately in order not to weaken the market. However, in view of the continuously growing need for copper in most parts of the world, the long-term prospects for the industry are regarded with optimism.

Gold: In 1960, about three-fifths of Canada's output of gold was produced in Ontario. The Province's gold production of 2,725,077 ounces with a value of \$92.5 million represented the largest quantity recorded since 1942. A small portion of Ontario's gold is found as a constituent of the nickel-copper ores of the Sudbury basin, but over 99 per cent comes from our gold mines which also produce over five per cent of the Province's silver output. The relative importance of Ontario's gold mining areas is set out in the following table.

PRODUCTION OF ONTARIO'S GOLD MINES BY AREA, 1960

Area	Gold		Silver		Total Value
	(Ounces)	% of Total	(Ounces)		\$
Porcupine	1,086,107	40.7	243,049		37,069,134
Larder Lake	591,766	22.2	33,370		20,158,688
Patricia	511,849	19.2	43,382		17,482,766
Kirkland Lake	332,703	12.5	96,248		11,385,246
Thunder Bay	106,283	4.0	6,596		3,622,095
Sudbury	38,927	1.4	11,588		1,331,905
Miscellaneous	91		17		3,138
Grand Total	2,667,726	100.0	434,250		91,052,972

A problem peculiar to gold mining is that the price of gold has remained unchanged since 1933-34 when it was set at U.S. \$35.00 per ounce. However, in the past 27 years, the costs of production have risen considerably, while no compensation could be found in an increase in the price of the final product. The Emergency Gold Mining Assistance Act, passed by Parliament in 1948, made it possible for high-cost or marginal mines to obtain financial assistance. As a result, economic activity could be maintained at a satisfactory level in communities such as the Porcupine gold camp, Kirkland Lake, Larder Lake and Red Lake, where the majority of the population depends directly or indirectly on the gold mining industry. The Act, which was to terminate in 1950, has been extended several times, the latest extension covering the years 1961, 1962 and 1963. An increase in the price of gold would undoubtedly enable those mines now receiving Government assistance to operate again on a profitable

basis. The recent decline in the premium on the Canadian over the U.S. dollar has raised the price of gold in Canadian dollars and improved the position of Canadian gold mines.

Prospecting for gold continued through 1960, particularly in the Larder Lake and Red Lake areas. In the Red Lake area, the H. G. Young mine entered the production stage in 1960; it is the Province's first new gold producer since 1949. A second new mine is expected to be opened this year in the Little Long Lac area. A new gold property is also being explored in the Steep Rock area. Exploration and development work are being carried out in Algoma District and in the Porcupine and Kirkland Lake areas. These undertakings promise to ensure the continuity of Ontario's gold-mining industry and offset the impending decline in the output of some of the older mines which have nearly exhausted their known reserves.

Iron Ore: In 1939, the value of Ontario's iron ore production was only \$300,000. Since World War II, the general trend in this industry has been one of steady growth. In 1956, the volume produced was almost five times the 1945 level. In 1957, the world's steel production fell sharply and consequently Ontario's iron ore output decreased from its 1956 record of 5,558,000 tons (value \$44.2 million) to 4,867,000 tons (value \$41.3 million). In 1958, production declined further to 3,645,000 tons, valued at \$36.9 million. In the second half of 1958, a recovery commenced in the steel industry which, in 1959, resulted in an all-time high in Ontario's iron ore production of 6,018,089 tons valued at \$50.8 million. A moderate decline to an estimated \$47.9 million in 1960 was caused by a slump in the United States steel industry which left idle about half of its rated capacity.

The Province's largest producer of iron ore is Steep Rock Iron Mines Limited, near Atikokan in the Rainy River District of Northwestern Ontario. As a result of the establishment of the iron-mining industry in this area, Atikokan has grown from a village of some 300 people before World War II, to a prosperous community of about 7,000 today. A further increase in population is likely, since Steep Rock Iron Mines plans a further expansion of its productive capacity to 5.5 million tons per year. Since 1958, Canadian Charleson Limited has been shipping iron ore from its nearby open-pit operations. As a by-product large quantities of gravel were produced. In the same area, the Caland Ore Company recently entered production at its new mine, after ten years of development and an investment of \$52 million. Total shipments for 1960 were in excess of 750,000 tons and the ultimate production target is three million tons annually by 1969. In 1960, about 54 per cent of Ontario's iron ore output came from the Rainy River District.

The second largest iron-mining centre in the Province is Algoma District, accounting for 27 per cent of Ontario's iron ore production. The ore comes from the Helen mine

of Algoma Ore Properties and from its Sir James mine, opened in 1959. The latter has a daily capacity of 4,000 tons extracted in open-pit operations; it has a reserve estimated at six million tons. The ore is shipped to the steel mills of the parent Algoma Steel Corporation in Sault Ste. Marie.

Some 500,000 tons of beneficiated iron pellets come annually from the county of Hastings, where iron is mined in open-pit operations near Marmora. In 1959, this Bethlehem Steel iron property was affected by the general steel strike in the United States, resulting in a considerable loss (116 days) in production. A new iron mine with an output of 100,000 tons per month, located north of Sudbury and owned by Lowphos Ore Limited, commenced production in 1959. At Copper Cliff, the International Nickel Company has an iron recovery plant, opened in 1956. The Company plans to spend \$50 million over the next three years for an expansion of their establishment.

Exploration, diamond drilling and new developments in iron mining are being carried out in Northwestern Ontario with encouraging results. Plans for the development of deposits estimated at 400 million tons of iron ore north of Nakina by Anaconda Iron Ore (Ontario) Limited are in the pilot-plant stage. Another large ore body, farther west, in the Bruce Lake area, estimated at 250 million tons, is being explored by Iron Bay Mines Limited. Sample shipments have been made to pelletizing plants in the United States and Germany. When the development of these reserves materializes, Northwestern Ontario is likely to become one of the main iron-mining centres on the North American continent. There is also evidence of extensive iron deposits near Lake Timagami, and smaller finds have been indicated in the vicinity of Kapuskasing, Chapleau, Kirkland Lake and north of Sault Ste. Marie.

Some years ago, when the demand for iron was very high, our mines found a ready market for unprocessed ore. When in 1957 activity in the steel industry receded and an over-capacity developed, steel producers became more selective with respect to the grades of iron they purchased. As a result, the trend in our iron-mining industry is to upgrade the ore in accordance with the buyers' needs. This development has prompted the management of the Steep Rock Iron Mines to invest several million dollars in a new ore-improvement plant.

The invention of new techniques, which make possible the production of the metal directly from the ores, has a stimulating effect on Ontario's iron-mining industry and may hasten the development of our low-grade ore bodies. An example of this is the proposed establishment of a significant iron-mining industry north of Kingston. Concentrating and smelting tests run on a sizable sample of these ores have shown favourable results. New Mylamaque Exploration Company, owner of these deposits, is considering the application of a new smelting process (Strategic-Udy) for the production of pig iron or unfin-



Photo—Oakman—Peterboro.

An open-pit iron mining operation of the Marmoraton Mining Co. Limited near Marmora. The mining of iron ore is one of many industries in the Province with a large growth potential.

ished steel from the ores in this area. The availability of natural gas also opens up new possibilities for the iron-mining industry since it can be used to make pig iron directly from the ore.

There is a possibility that plans for the development of large iron ore reserves on the Belcher Islands (N.W.T.) in James Bay will materialize. In view of the fact that the northern shipping route from these islands through the Hudson Strait is icebound for nine months in the year, Moosonee and the Ontario Northland Railway seem to provide the most economical outlet for channeling Belcher ores to the centres of the steel industry on our continent. At least two good harbour sites are available near Moosonee, while the surrounding area has sufficient potential for the development of electric power. A substantial saving in freight could be effected by upgrading the ore at Moosonee, either by traditional methods or by means of natural gas if the gas pipeline system should be extended to this northern community.

Platinum: The total Canadian production of this metal (with a value of \$18.1 million in 1960) comes from Ontario. Platinum is used in the oil industry as a catalyst for making high-octane gasoline and in some other industries as well. About ten per cent of the world's production of this metal is used in the fabrication of jewellery. The United States is the main consumer of platinum and the platinum metals (palladium, iridium, osmium and ruthenium). In 1959, Canada (Ontario) ranked second in the free world as a producer of platinoids. Production is concentrated in the Sudbury area, where these minerals are recovered as a by-product from the treatment of nickel-copper ores. Value of production in Ontario of platinum and the platinum metals together doubled from \$12.8 million in 1946 to \$25.7 million in 1957. In 1958, production declined to \$13.8 million, partly as a result of the strike at International Nickel in the second half of 1958. Last year, the output increased to \$27.7 million.

Cobalt: The production of cobalt in Ontario increased from 74,000 pounds with a value of \$70,000 in 1946 to 3,751,000 pounds with a value of \$7,541,000 in 1957. Last year's output had a value of \$5,235,000. Substantial quantities are obtained as a by-product from nickel and other base-metal mining operations. The Sudbury area is the main source of Ontario's cobalt. The metal is also mined, in conjunction with silver, near Cobalt and Gowganda. Since the end of 1956, however, the latter areas have produced only negligible quantities, as a result of a decline in the price of cobalt which made it more profitable to concentrate on silver production.

Canada is the world's third largest producer of cobalt, ranking after the Congo Republic and Northern Rhodesia. In 1960 Ontario produced 92 per cent of Canada's cobalt. Production figures showed a gain of 6.7 per cent over 1959. The mineral is used in the steel industry for high-temperature alloys and in permanent-magnet alloys.

Silver: About three-fifths of Ontario's silver originates from the silver-cobalt mines in the Cobalt-Gowganda area. The International Nickel Company in Sudbury and Geco Mines and Willroy Mines, both situated in the Manitouwadge area, are base-metal producers which recover silver as a by-product.

Ontario produces about one-third of the country's silver. Since 1946, the value of the Province's production of this metal more than quadrupled, from \$2,079,000 to \$8,653,000 in 1960. Traditionally, silver is used in coins, sterling silver, plateware, jewellery, ornaments and for photographic purposes. The industry is likely to benefit from a further increase in the use of silver in the electronic, chemical and metal-joining fields. World consumption of silver is growing and, in recent years, has been in excess of mining production. Consequently, several mining companies in the Cobalt area are exploring possibilities to enlarge their output.

Magnesium: The Dominion Magnesium mine located at Haley, in Renfrew County, now is the only operating magnesium mine in Canada. During most of 1958 and 1959 the Company operated below capacity. Late in 1959, Aluminum Company of Canada closed its magnesium operations in Quebec and decided to purchase most of its requirements from the Haley mine. Consequently, the value of Ontario's magnesium production almost doubled from \$2,200,000 in 1959 to \$4,280,000 in 1960.

Our main export markets for magnesium are overseas. The U.S. produces almost half of the world's supply of this mineral and has imposed a tariff on magnesium which makes its import from Canada uneconomic. Although a large-scale expansion of this industry in the near future is not likely, the demand for magnesium is stimulated by an increasing use of the metal in various manufacturing industries, particularly in those making missiles, jet engines and aircraft.

Non-Metallic Minerals

The value of production of non-metallic minerals in Ontario in 1960 was \$24,776,000—3.0 per cent of the total value of \$850,151,000 for metallic and non-metallic minerals together.

Salt: Salt, worth \$13,412,000 in 1960, accounted for 54 per cent of the value of the Province's non-metallics produced in that year. Since 1946, when output stood at \$2,408,000, the value of production of this mineral has more than quintupled. Ontario's 1960 production of salt represented more than nine-tenths of the Canadian total.

About three-quarters of Ontario's salt is produced in the Windsor area. Other centres of production are Sarnia and Goderich. An important expansion of the industry took place in the fall of 1959, with the opening of a new mine at Goderich by Sifto Salt Limited. This mine is considered to be the most modern and efficiently operated of its kind in the world.

Asbestos: Second in the group of the Province's non-metallic minerals is asbestos, with a value of production in 1960 of \$3,633,000. The only significant source of this mineral in Ontario is near Matheson in the Cochrane District, where open-pit mining operations commenced in 1950. The value of production in that year was \$1,493,000. Value of output rose to a peak of \$4,063,000 in 1953 and since then has fluctuated around \$3.6 million. At the end of 1958, the construction of an underground mine was completed which replaced the open-pit as a source of supply.

Nepheline Syenite: Ontario is the only source of this mineral in the free world. The value of production has increased from \$229,000 in 1946 to \$3,030,000 in 1960. The mineral is used extensively in the manufacture of glass and ceramic products and is produced in open-pit mining operations by two companies, both located near Nephpton, north of Peterborough.

Fuels

The value of fuels produced in Ontario in 1960 amounted to \$8,857,500, of which \$6,093,750 was accounted for by natural gas and \$2,763,750 by petroleum. The Province's gas and oil fields are concentrated in southwestern Ontario, mainly south of a line between Hamilton and Sarnia.

Natural Gas: From 1946 to 1960, natural gas production in Ontario more than doubled, from 7.1 billion cubic feet to 16.3 billion. Drilling for gas in Lake Erie has increased considerably in recent years. At the end of 1959, approximately 2,900 producing gas wells were in operation in the Province, 103 of which were off-shore in

Lake Erie. Although the initial cost of drilling an off-shore well is double that of a well drilled on land and the operation and maintenance of lake wells present particular problems, the average yield per well in our off-shore gas fields is many times that of our land wells. Improved technological methods also contribute to making off-shore operations more attractive. Technically, it is possible to drill a well in any sector of Lake Erie, but for reasons of accessibility and depth, most drillings have been made in the western and eastern parts of the lake. Recently, more activity is being directed toward eastern Lake Erie in the search for off-shore gas. There are indications that this area has a considerable potential for a further development of natural gas production.

Crude Petroleum: Ontario's production of crude petroleum is estimated at 1,005,000 barrels (\$2.8 million) in 1960, a slight increase over 1959 when it was 1,001,000 barrels. The Moore Township pools in Lambton County and the Rodney field in the western part of Elgin County are the major sources of oil in the Province. In the period 1946 to 1960 the production of this fuel more than quadrupled.

Structural Materials

The production of structural materials in Ontario has grown at a very high rate since World War II, as is demonstrated by the following statistics:

VALUE OF PRODUCTION OF STRUCTURAL MATERIALS IN ONTARIO
1946, 1959 AND 1960

				Per Cent Change	
	1946	1959	1960	1960/1946	1960/1959
	(Thousands of Dollars)				
Sand and Gravel....	6,289	39,696	39,788	532.7	0.2
Cement.....	6,026	31,732	29,662	392.2	-6.5
Clay products.....	4,289	22,175	21,361	398.0	-3.7
Stone.....	3,924	22,053	22,884	483.2	3.8
Lime.....	3,316	14,006	11,322	241.4	-19.2
Total.....	24,294	129,662	125,017	414.6	-3.6

Sand and gravel, ranking first among the structural materials, are found in almost all parts of the Province. Production is highest in the Metropolitan Toronto area, which accounts for over one-third of Ontario's output of these products. *Cement*, with a 1960 value of production next to that of sand and gravel, is mainly produced in a few large plants. The largest of these opened at the end of 1956 at Clarkson in Peel County, while others are located at Belleville in Hastings County, St. Mary's and Woodstock. In 1950, Ontario's cement plants had an aggregate rated capacity of 5.5 million barrels per year; expansions have brought this total to more than 17 million

barrels. *Clay products*, as is the case with sand and gravel, are produced in large quantities in the Metropolitan Toronto area, which accounts for more than half of Ontario's total output. Brick and drainage tile together make up the major part of the \$21 million value of Ontario's clay products produced in 1960. The remainder is comprised of sewer pipe, pottery and a variety of other products. The bulk of the *stone* produced in Ontario is limestone, used for construction and for decorative purposes. The main production areas are the Niagara Region and the Eastern Ontario Region which, in 1958, supplied more than 60 per cent of the value of Ontario's stone production. *Lime* is mainly produced in the counties of Oxford, Essex, Welland and Wellington, in southwestern Ontario, which together supply 97 per cent of the Province's output. Lime is used in the chemical industry, iron and steel production, the building trade, uranium mills and in various other industries.

Ontario ranks first among the provinces with respect to the production of structural materials and in 1960 accounted for nearly 40 per cent of the country's output of these products. In that year the Province supplied 36 per cent of the sand and gravel, 33 per cent of the cement, 40 per cent of the stone, 53 per cent of the clay products and 66 per cent of the lime produced in Canada.

It is evident that the remarkable growth in the construction industry since World War II has been a major factor in stimulating the production of structural materials. In 1946 the value of work performed in the construction industry in Ontario stood at \$348 million; the corresponding preliminary figure for 1960 was as high as \$2.5 billion. The cost of materials used in this work climbed from \$184 million in 1946 to \$1.2 billion in 1960.

CONSERVATION MEASURES*

Conservation in Ontario is carried out on a comprehensive basis and embraces such activities as flood and pollution control, improved land use, reforestation and woodlot management, and the provision of recreation facilities. In order to organize conservation work, both locally and Provincially, the Conservation Branch of the Department of Commerce and Development was established in 1944. The Branch encourages municipalities (cities, towns, villages and townships) in a watershed to join Conservation Authorities, with representation on a population basis. Most of the river valleys of Southern Ontario, as well as three in the north, are now served and protected by these Authorities.

*Prepared on the basis of information from the Conservation Branch, Ontario Department of Commerce and Development.

From the passing of The Conservation Act early in 1946 until the end of February, 1961, 30 Authorities were organized, covering an area of 19,520 square miles and including 438 participating municipalities. In addition, the Grand River Conservation Commission, established by a separate Act in 1938 to deal with flood control problems only, should be included with this group. In 1958 and 1959, eight new Authorities were added: Central Lake Ontario, Crowe Valley, Sauble Valley, Spencer Creek, Twelve-Mile Creek, the Niagara Peninsula, Otonabee Valley and Whitson Valley, while in 1960, the Nottawasaga, the Lower Thames, and the Sydenham Conservation Authorities were established. Also in 1960 the Otonabee Valley Authority was expanded by the inclusion of the Indian River and Ouse watersheds, and the boundaries of the Upper Holland Valley Authority were enlarged to include the whole watershed of the Holland River. As a result of these additions, the above Authorities

were renamed the Otonabee Region and the Holland Valley Conservation Authorities.

As the area included under an Authority is governed by the size of the watersheds of the rivers or creeks concerned, the area boundaries often cut across county lines. The largest Authority, the Grand Valley, for instance, covers parts of ten counties within five economic regions.

The most costly problems faced by the Authorities are those of flood control and water conservation. Several of the Authorities were established for the prime purpose of mitigating the annual floods that were occurring in their areas. A substantial number of flood control and water conservation measures have been completed or are underway within the Authorities and the Grand River Conservation Commission. By the end of December, 1960, the aggregate cost of these works stood at about \$20 million. A list of all flood control and water conservation measures undertaken by the Authorities is contained in an Appendix table.



Courtesy—The Photographic Survey Corporation Limited, Toronto, Ontario.

Aerial view of the Conestogo Dam on the Upper Conestogo River, completed in 1959 by the Grand River Conservation Commission.

CONSERVATION AUTHORITIES IN ONTARIO,
AS AT FEBRUARY 28, 1961

No. of Authority	Conservation Authority	Counties Concerned	No. of Municipalities	Area in Square Miles
16	Ausable River	Huron, Lambton, Middlesex, Perth	23	665
16	Ganaraska River	Durham, Northumberland	6	103
17	Moirs River	Hastings, Lennox and Addington	17	1,056
17	Napanee Valley	Frontenac, Lennox and Addington	11	307
17	South Nation River	Carleton, Dundas, Glengarry, Grenville, Leeds, Prescott, Russell, Stormont	28	1,512
147	Upper Thames River	Middlesex, Oxford, Perth	31	1,325
148	Grand Valley	Brant, Dufferin, Grey, Haldimand, Halton, Norfolk, Oxford, Perth, Waterloo, Wentworth	70	2,614
1950	Catfish Creek	Elgin, Oxford	6	153
1950	Saugeen Valley	Bruce, Grey, Huron, Wellington	38	1,619
1951	Middle Maitland	Huron, Perth, Wellington	13	258
1951	Holland Valley	York, Simcoe	8	232
1954	Big Creek Region	Brant, Haldimand, Norfolk, Oxford	18	610
1954	Neebing Valley	Thunder Bay District	6	86
1954	Otter Creek	Brant, Elgin, Norfolk, Oxford	15	316
1954	Credit Valley	Dufferin, Halton, Peel, Wellington	16	391
1956	Sixteen-Mile Creek (Oakville Creek)	Halton	5	159
1957	Junction Creek	Sudbury District	9	125
1957	Metropolitan Toronto and Region (Amalgamation of the former Don, Etobicoke- Mimico, Humber and Rouge-Duffin-High- land-Petticoat Authorities with adjacent areas)	Dufferin, Ontario, Peel, Simcoe, York	23	968
1957	North Grey Region	Grey	14	655
1958	Central Lake Ontario	Durham, Northumberland, Ontario	9	242
1958	Crowe Valley	Durham, Haliburton, Hastings, Northumberland, Peterborough	12	783
1958	Sauble Valley	Bruce, Grey	11	521
1958	Spencer Creek	Wellington, Wentworth	6	101
1958	Twelve-Mile Creek (Bronte Creek)	Halton, Wellington	6	124
1959	Niagara Peninsula	Haldimand, Lincoln, Welland, Wentworth	39	800
1959	Otonabee Region	Durham, Northumberland, Peterborough	11	454
1959	Whitson Valley	Sudbury District	8	123
1960	Nottawasaga	Simcoe, Dufferin, Grey	27	1,210
1960	Sydenham	Middlesex, Kent, Lambton	29	1,050
1960	Lower Thames	Middlesex, Elgin, Essex, Kent	29	917
1945-60	30 Authorities	43 Counties, 1 Provisional County, 2 Districts	451*	19,520
	Grand River Conservation Commission	Consists of 8 urban municipa- lities; established under separate Act, 1938, for flood control only		

*Municipalities in one or more Conservation Authorities.

Source: Memorandum prepared by the Conservation Branch, Ontario
Department of Commerce and Development.

In addition to the above measures which have been completed or are underway, numerous other projects have been planned or are in various stages of planning. The Ontario Government has approved grants for major flood control and water conservation schemes on the Upper Thames, the Ausable and the Moira and within the Metropolitan Toronto and Region Authority. At December 31, 1960, construction of these projects was estimated to cost \$47.2 million (\$34.1 million for the Metropolitan Toronto

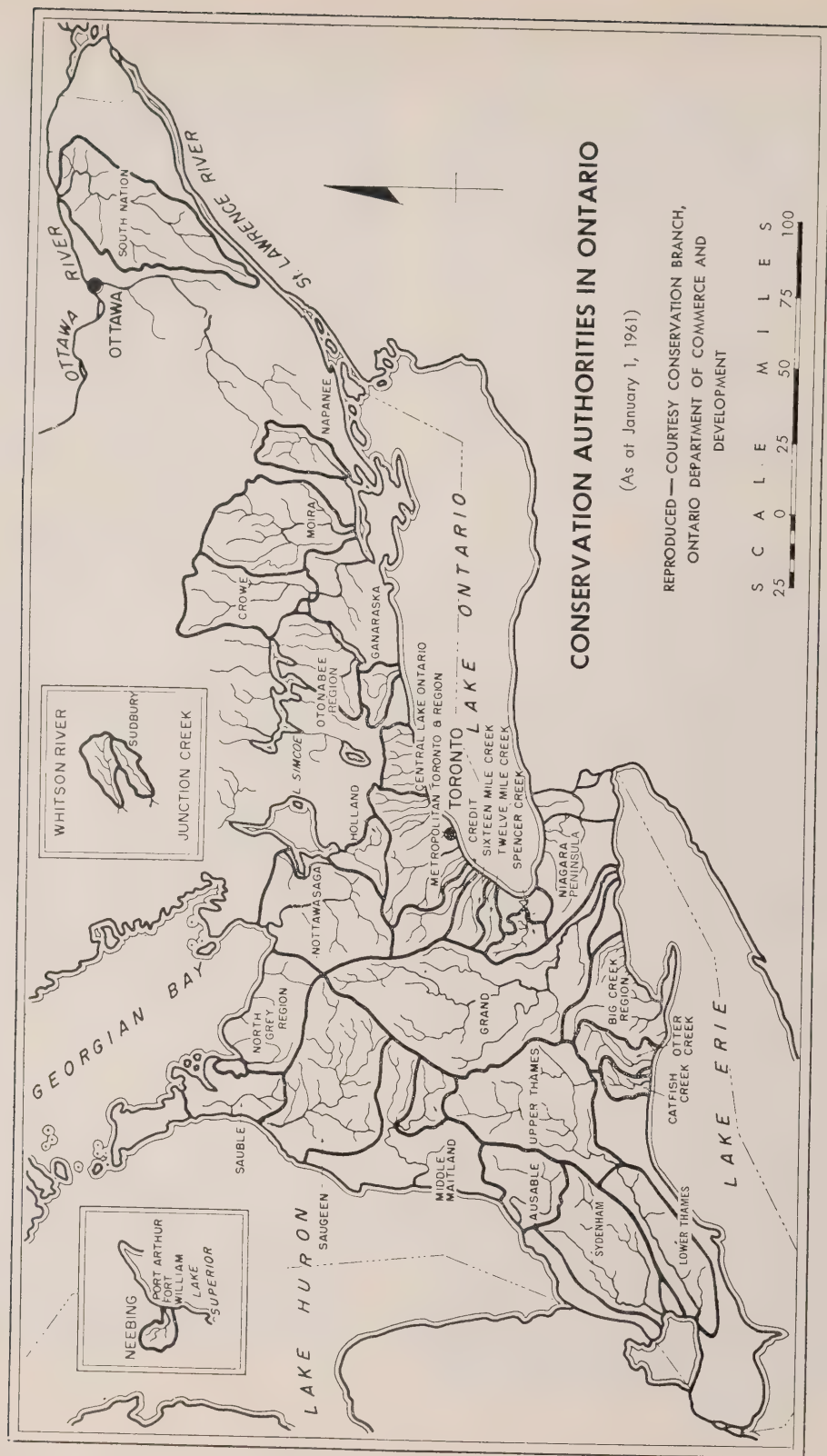
scheme alone). A Federal Government decision to provide matching grants has been given on one — the Upper Thames scheme. The remaining 25 per cent in each case is to be raised by the Authorities themselves. The total cost of all projects completed, underway, planned or under preliminary consideration, amounts to almost \$136 million.

Fourteen Conservation Authorities have agreements with the Department of Lands and Forests for the establishment and management of Authority forests. Under these agreements, which run for fifty years, the Ontario Government advances to the Authority one-half the cost of land and assumes the entire cost of establishing and managing the forest. At the end of December, 1960, the total area of these forests stood at 50,000 acres. As part of the reforestation program, private landowners are given Authority assistance in planting trees.

The Authorities have been active in acquiring and developing conservation areas. These areas comprise all land owned by an Authority which is not already devoted to Authority forests, and include surplus land bordering a large reservoir, land surrounding a community pond or mill dam built by an Authority, flood plain land, swamp land, wooded valleys and land purchased for the demonstration of conservation practices. Exceptionally suitable parts of these areas have been developed as parks and provided with recreation facilities. By the end of December, 1960, 90 conservation areas had been established with an acreage of 25,000. Forty-nine areas have park facilities covering more than 3,000 acres. These parklands attracted approximately 1,800,000 visitors during 1960. A table showing conservation areas and parklands may be found in the Appendix.

The Conservation Authorities are also interested in other schemes such as improved methods of land use, prevention of pollution, investigation and recharging of underground water supplies, irrigation, farm ponds, the rebuilding of old mill dams and wildlife studies. Since the Authorities are not equipped to carry out the extensive investigations necessary to find out where such work should be done, the Conservation Branch of the Department of Commerce and Development includes a small group of technicians for this purpose. In its surveys, the Branch appraises the conservation needs of each watershed and presents to the Authority concerned a comprehensive program for the solution of its problems. The survey work is grouped under five general headings: Land Use, Forestry, Water (Hydraulics and Hydrometeorology), Wildlife and Recreation. In addition, a study of the history of the area is included. All survey work begins with aerial photography.

The results of the surveys together with the recommendations based on them are then presented to the Authorities. The Authority assumes the responsibility of initiating any schemes it considers urgent, and approaches



the Government Departments or other bodies from which it requires assistance. Before any project can be proceeded with, approval must be given by the Minister of Commerce and Development.

Under the present policy of financial assistance to the Authorities, the Province provides grants equal to 50 per cent of all administrative expenses and 50 per cent of the cost of approved projects of under \$5 million. For capital works of a larger character, the grant is 37.5 per cent, supplemented, in most cases, by a further 37.5 per cent

from the Federal Government. The Province also pays 75 per cent of the cost of preliminary engineering work on hydraulic projects. The Federal-Provincial Winter Works Program has been another source of funds for some Authorities on projects involving the clearance of reservoir sites and the building of roads and dams. Under the terms of this program, 50 per cent of the labour costs of projects undertaken in the winter months is contributed by the Federal Government and 25 per cent by the Province of Ontario.



Courtesy—The Photographic Survey Corporation, Limited, Toronto, Ontario.

Aerial view of the Heart Lake Conservation area, four miles northeast of Brampton, which has become a very popular recreation area.

Energy

Ontario consumes over 40 per cent of the total energy¹ used in Canada and about 70 per cent more than the next greatest consuming province. Ontario's tremendous need for energy supplies is implicit in the fact that this Province contains over a third of Canada's population and about 37 per cent of its labour force, attracts nearly 38 per cent of Canada's new capital investment, earns 41 per cent of its personal income, and produces about 41 per cent of the Gross National Product and 50 per cent of the value of Canada's manufactured products.²

During the past few years, largely owing to the greater use of natural gas, the Province has been experiencing a major change in the proportions of energy supplied by various sources. This change was accelerated in 1958 after the completion of the trans-Canada natural gas pipeline on October 10. The amount of coal made available in Ontario has declined sharply in recent years owing to the growth of natural gas and oil and technological improvements. From 1946 to 1959, the total amount of energy made available in Ontario by the five major sources increased by 41 per cent. Coal was the source of 39 per cent less energy in 1959 than in 1946. As it supplied only one-third of the total energy made available in 1958 in contrast to three-quarters in 1946, its relative importance has also declined. All four of the other sources improved their relative position during the period.

ENERGY MADE AVAILABLE IN ONTARIO FOR CONSUMPTION,
BY SOURCE, 1946, 1957 AND 1959

Source	(Trillions of British Thermal Units)						% Change 1959/1946
	1946		1957		1959		
	Amount	% of Total	Amount	% of Total	Amount	% of Total	
Coal	537.0	74.0	486.7	45.5	326.9	32.0	-39
Petroleum fuels ..	63.3	8.7	258.9	24.2	291.5	28.6	361
Gasoline	67.1	9.3	183.9	17.2	199.3	19.5	197
Electric power ..	51.1	7.0	106.1	9.9	120.7	11.8	136
Natural gas	7.1	1.0	35.0	3.2	83.0	8.1	1,069
Total	725.6	100.0	1,070.6	100.0	1,021.5	100.0	41

One of the most impressive indications of the growth of the Ontario economy since the Second World War is the high rate of per capita consumption of the newer sources of energy. Although Ontario's population expanded from 4.1 million in 1946 to 6.0 million in 1959 or by 45.4 per cent, the per capita consumption of petroleum fuels trebled, while that of gasoline doubled, electric power rose by 63 per cent and natural gas increased by 707 per cent.

¹The five forms of energy considered in this section are electric power, petroleum fuels, gasoline, natural gas and coal. Manufactured gas is excluded because it is produced from coal, and wood owing to the lack of data.

²For a more detailed survey of Ontario's energy requirements and supplies see the Submission of the Government of Ontario to the Royal Commission on Energy presented to the Commission by Prime Minister Leslie M. Frost, on July 4, 1958.

Only in the available supplies of coal per capita was there a decline—by more than half.

PER CAPITA SUPPLIES OF THE SOURCES OF ENERGY IN ONTARIO
ADJUSTED FOR RELATIVE EFFICIENCY IN USE, 1946, 1957 AND 1959

Source	(Millions of British Thermal Units)						% Change 1959/1946
	1946		1957		1959		
	Amount	% of Total	Amount	% of Total	Amount	% of Total	
Coal.....	70.9	73.3	50.2	47.4	31.9	33.2	-55
Petroleum fuels..	9.1	9.4	26.0	24.5	27.4	28.5	202
Gasoline.....	3.3	3.4	6.5	6.2	6.7	7.0	104
Electric power...	12.5	12.9	18.9	17.8	20.3	21.1	63
Natural gas.....	1.2	1.3	4.4	4.1	9.8	10.2	707
Total.....	96.9	100.0	106.0	100.0	96.0	100.0	-1

Since each form of energy has a different substitutability relationship with the others, and since each responds to different supply and demand factors, it is necessary to consider the various forms separately as well as in combination.

Electric Power

Water-Power Resources and Development: Ontario, with its innumerable lakes and rivers, has been endowed with abundant water-power resources. By making possible the production and distribution of low-cost electricity, this



Courtesy—The Ontario Department of Lands and Forests.

One of the many small potential sources of hydro-electric power in Northern Ontario—108' high Aubrey Falls on the Mississagi River.

has compensated to a large extent for the Province's lack of indigenous coal supplies. Low-cost power is a prime necessity in the production of pulp and paper, one of Ontario's largest industries; it has made possible the economic mining, milling and refining of base and precious metals; it has facilitated the development of a large and varied manufacturing industry; and has contributed to the rising standard of living enjoyed by the people of the Province.

There are three main sources of water power in Ontario: (1) the Canadian Shield, which covers most of Northern Ontario and is characterized by numerous lakes and rivers with many falls and rapids; (2) the Ottawa River; and (3) the Niagara-St. Lawrence Rivers. That section of the St. Lawrence River which has been developed in conjunction with the Seaway was the last major hydro-electric site in Ontario. The remaining sites, although large in total capacity, are relatively small by themselves and mostly to be found in Northern Ontario. The rate of increase in the demand for electric power, moreover, is so high that these remaining sites cannot suffice for more than a few years. The Province must, therefore, turn increasingly to thermal plants for the generation of electricity.

But water power is still, and for many years will continue to be, the source of much of the electricity produced in Ontario. In 1960 when a total of 35.7 billion kilowatt-hours of energy was generated by electric utilities and industrial establishments within the Province, 34.9 billion kilowatt-hours, or 97.7 per cent, was generated by hydro plants and the remainder by thermal plants.

From data on the available and developed water-power resources of Canada, it is apparent that Ontario is exceeded by Quebec and British Columbia in resources, but that only Quebec has installed a larger turbine capacity. Ontario, however, has developed a far higher percentage of its potential water power than has either Quebec or British Columbia.

Production and Distribution of Electric Power: Since 1956, it has been possible to determine the total amount of electrical energy generated and distributed in Canada and the provinces. Data are now available back to 1949 not only for electric utilities, whose primary function is to sell electricity, but also for all industrial establishments which generate electric power, whether for their own use or for sale to the public.

The generation of energy is not by itself, however, a true indication of the use of electricity in the Province as Ontario systems are interconnected with neighbouring systems in the Provinces of Quebec and Manitoba and in the United States. The net effect of importing and export-

ing operations, principally with producers in the Province of Quebec and United States, respectively, is to make available in Ontario more kilowatt-hours than are generated.

ELECTRIC ENERGY MADE AVAILABLE FOR DISPOSAL IN ONTARIO, 1949 TO 1960

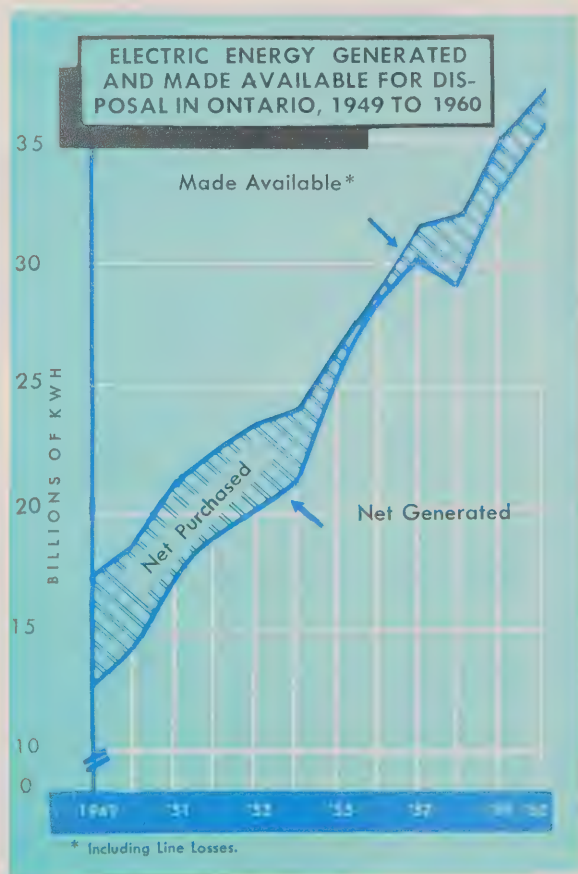
	Total	Generated Utilities	Industry	Imported ¹	Exported ¹	Made Available for Disposal in Ontario ²
	(Thousands of Kilowatt-Hours)					
1949	12,904,521	11,251,206	1,653,315	5,467,023	967,795	17,403,749
1950	14,141,040	12,402,859	1,738,181	5,355,515	1,048,301	18,448,254
1951	17,580,557	15,798,735	1,781,822	5,165,015	1,496,796	21,248,776
1952	18,913,381	17,101,768	1,811,613	5,101,962	1,585,397	22,429,946
1953	19,872,114	18,057,382	1,814,732	5,049,592	1,408,166	23,513,540
1954	21,139,223	19,306,049	1,833,174	4,710,005	1,854,364	23,994,864
1955	25,599,596	23,689,975	1,909,621	4,575,440	3,598,808	26,576,228
1956	28,782,639	26,812,856	1,969,783	4,803,851	4,398,402	29,188,088
1957	29,982,854	27,970,498	2,012,356	5,375,606	4,250,177	31,108,283
1958	29,139,441	27,149,847	1,989,594	6,232,269	3,454,936	31,916,774
1959	33,247,128	31,277,017	1,970,111	6,093,619	3,953,669	35,387,078
1960	35,697,911	33,601,090	2,096,821	6,182,155	4,890,266	36,989,800

¹Includes energy sent to and received from Quebec and Manitoba as well as the United States.

²Includes transmission and distribution losses.

Note: Includes only firms which generate at least 10 million kilowatt-hours per annum.

Source: Dominion Bureau of Statistics, *Electric Power Statistics* (monthly); The Hydro-Electric Power Commission of Ontario.





SOURCES OF ELECTRIC POWER



ONTARIO ECONOMIC REGIONS

NO. NAME

- 50 EASTERN ONTARIO
- 51 LAKE ONTARIO
- 52 METROPOLITAN
- 53 NIAGARA
- 54 LAKE ERIE
- 55 LAKE ST. CLAIR
- 56 UPPER GRAND RIVER
- 57 GEORGIAN BAY
- 58 NORTHEASTERN ONTARIO
- 59 LAKEHEAD - NORTHWESTERN ONTARIO

Of the 35.7 billion kilowatt-hours of energy generated in 1960, 33.6 billion kilowatt-hours or 94 per cent were produced by utilities. In the ten years since the end of 1949, the total amount of energy generated in the Province has increased by 177 per cent—generation by utilities by 200 per cent and generation by industries by only 27 per cent.

Of the 37 billion kilowatt-hours of electrical energy made available in the Province in 1960, nearly 90 per cent was provided by The Hydro-Electric Power Commission of Ontario. The remainder was provided either by other electric utilities or by industrial companies generating electricity primarily for their own use. Only four large centres, Sault Ste. Marie, Cornwall, Gananoque and Fort Erie and a few smaller ones, mostly in the northern part of the Province, are not supplied by Ontario Hydro.

The primary function of Ontario Hydro is to provide electric power at cost, by generation or purchase, and to deliver this power either to the associated municipal electric utilities and interconnected systems for resale or to some two hundred industrial customers served directly by the Commission. This aspect of its operations accounts for about 92 per cent of the energy sold by the Commission. The municipal utilities in their turn own and operate distribution systems to serve their own ultimate customers. Distribution of the remaining 8 per cent of the energy sold by Ontario Hydro involves Commission ownership and operation of the facilities which provide retail service to customers in most rural areas of the Province and in a limited number of municipalities.

By the end of 1959 (the most recent year available), Ontario Hydro was serving, directly or indirectly, 1,830,442 ultimate customers throughout the Province. These, during the year, consumed nearly 28 billion kilowatt-hours of energy, nearly 2½ times the 1949 level and four and one-quarter times the 1939 level. Over these same periods, the number of customers increased by 70 per cent and 153 per cent, respectively.

ULTIMATE CUSTOMERS IN ONTARIO SERVED DIRECTLY OR INDIRECTLY BY THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO, SELECTED YEARS 1939 TO 1959

	Total ¹	Domestic	Farm	Commercial	Power
1939	721,995	576,276	52,858	78,949	13,912
1946	906,325	718,147	72,285	99,400	16,493
1949	1,078,066	842,283	102,786	114,258	18,739
1956	1,612,042	1,286,985	139,289	160,978	24,790
1957	1,674,055	1,348,685	140,604	159,936 ²	24,830
1958	1,757,397	1,432,242	140,343	159,412 ²	25,400
1959	1,830,442	1,504,555	140,892	158,909	26,086

¹Does not include street lighting.

²Decrease reflects reclassification of some customers from commercial to domestic billing.

Proportionately, the greatest increase in consumption since 1939 occurred in farm service. Since 1949, however, commercial service has taken the lead, increasing by 234 per cent over the period compared with 219 per cent for domestic service, 193 per cent for farm and 108 per cent for power. In absolute terms, energy consumed by power customers has risen far more than for any other classification. In 1959, power customers accounted for 58 per cent of the energy consumed.

ELECTRIC ENERGY CONSUMED IN ONTARIO BY ULTIMATE CUSTOMERS OF THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO, SELECTED YEARS 1939 TO 1959

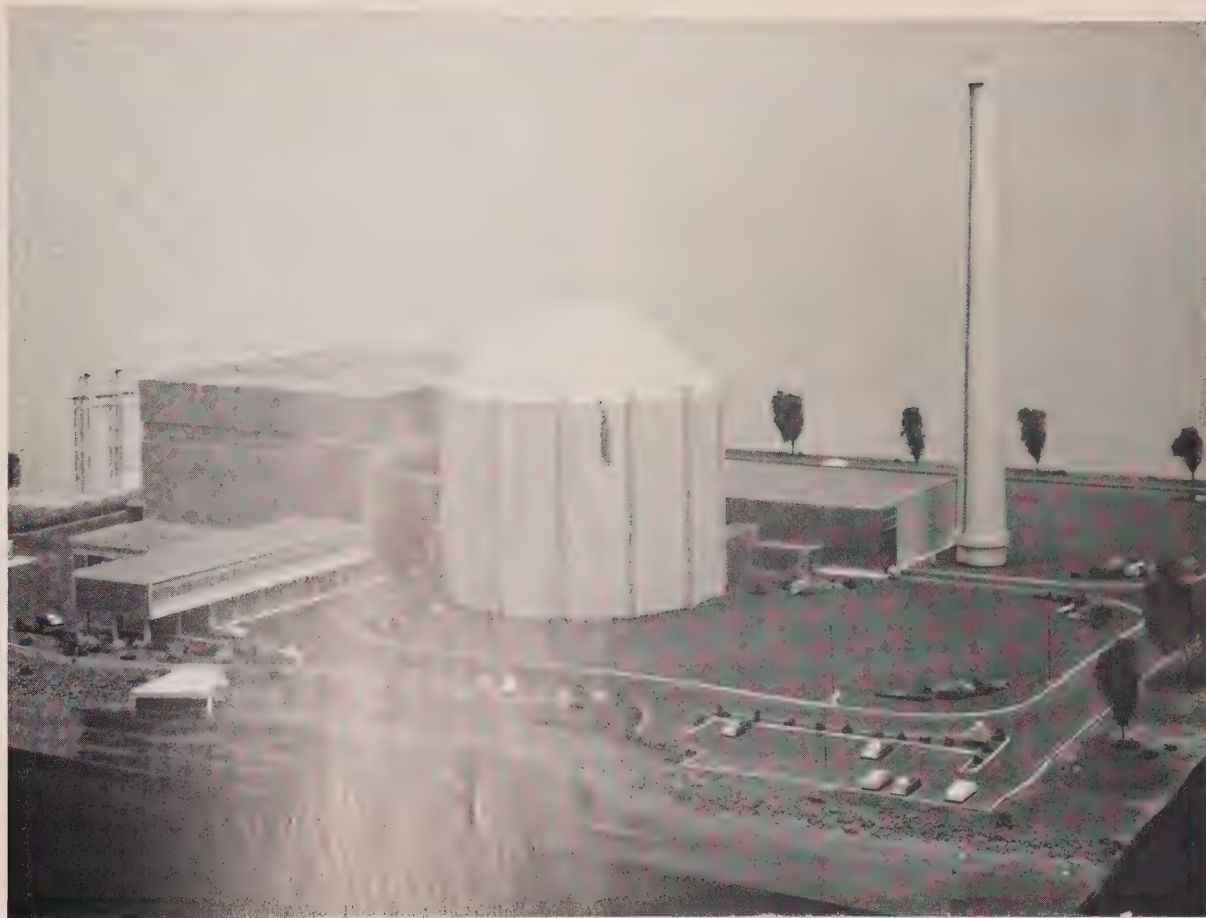
	Total	Domestic	Farm	Commercial	Street Lighting	Power
	(Millions of Kilowatt-Hours)					
1939	6,563	1,090	80	458	87	4,847
1949	11,503	2,383	274	884	115	7,847
1956	22,300	5,927	643	2,292	200	13,238
1957	23,962	6,433	686	2,503	217	14,123
1958	25,009	6,997	739	2,705	233	14,335
1959	27,940	7,590	804	2,952	251	16,343

At the end of 1960, the Commission's total resources amounted to 6,526,150 kilowatts of which 5,906,950 kilowatts were represented by Commission-owned generating stations, the balance being purchased, mostly from power companies in Quebec. During the year, 460,000 kilowatts of new generating capacity were brought into service. In December, total demand reached a record of 5.7 million kilowatts, an increase of three per cent over the previous year.

During 1960, the Commission was engaged in actual construction at eight projects throughout the Province, and in engineering work for two others. Two of these projects were for the purpose of developing power through nuclear-electric generation, three through thermal-electric generation and five through hydro-electric generation.

With the completion of the Niagara and St. Lawrence projects in 1958 and 1959 respectively, the Commission had developed all the major hydro-electric sites in the Province. The remaining sites, while having a combined capacity of some two million kilowatts, are relatively small and would be insufficient to meet the growing power demands for more than a few years. It will, therefore, be necessary to rely increasingly on thermal generation. As Ontario has the largest known deposits of uranium in the free world, the Commission is naturally interested in using nuclear power as an alternative to imported coal and during the past few years has taken a leading part in investigations of the possibility of nuclear power in Canada.

As a result of this research Ontario Hydro is now co-operating with Atomic Energy of Canada Limited and the Canadian General Electric Company in the construc-



Courtesy—The Hydro-Electric Power Commission of Ontario.

An architect's model of the Douglas Point Nuclear Station, Canada's first large-scale nuclear-electric plant. It is being built on the shore of Lake Huron between Kincardine and Port Elgin.

tion of Canada's first nuclear power plant, known as NPD (Nuclear Power Demonstration). This 20,000-kilowatt generating station, scheduled for service this year, is being built primarily to obtain experience in the design and operation of nuclear power plants. It is located on the Ottawa River near Rolphton, about 150 miles northwest of Ottawa. While NPD will itself not produce power more cheaply than conventional thermal stations, it is hoped that by the late 1960's other nuclear plants will be competitive for base load operation.

In 1958, a nuclear power plant division of Atomic Energy of Canada Limited was established in Toronto to undertake preliminary design and development work for a large-scale nuclear-electric station. Engineers and facilities were assigned to this division by Ontario Hydro. In June, 1959, it was announced that final design and con-

struction planning would begin immediately, with completion scheduled for 1964 or early 1965. This new project, to be known as Douglas Point Nuclear Power Station, will have an initial capacity of 200,000 kilowatts of electricity. Its operating principles will be similar to those of NPD, that is, it will employ natural uranium as a fuel and will be cooled and moderated by heavy water. Cost of the project is estimated at \$60 million, excluding development costs. The station is being built by Atomic Energy of Canada Limited on a 2,300-acre site on the shore of Lake Huron, between Kincardine and Port Elgin. Work commenced in 1960 with the construction of an access road, the erection of construction buildings and equipment, and the excavation of beach shingle for the powerhouse itself. When in operation, the station will be staffed by Ontario Hydro, which will purchase the power

generated during a trial period. As soon as the operation of the plant has demonstrated its suitability, the station will be purchased by Ontario Hydro at a cost that will permit the power generated at Douglas Point to be competitive with that from coal-fired plants of similar size.

Canada's first privately owned nuclear reactor began operations in April, 1959 at McMaster University in Hamilton. This experimental reactor marked a major advance in the Canadian program to develop peaceful uses of the atom. It will be used for research into the physical and biological sciences, engineering and medicine. The \$2 million project was financed by grants from Canadian Government research agencies and Ontario Hydro and by contributions from private industry.

The rapidly growing power demands must meanwhile be met by developing the remaining hydro-electric sites as it becomes economically feasible to do so, and at the same time building conventional coal-fired thermal plants. Two new Ontario Hydro thermal-electric plants are now under construction. The Lakeview Generating Station, located just west of Toronto, is designed for an ultimate capacity of 1.8 million kilowatts in six units. The first of the 300,000-kilowatt units is scheduled for service late in 1961, the second will follow in 1962, and a third and

fourth in 1963 and 1964. The other new thermal station is being built at Fort William. The Thunder Bay Generating Station will have an initial capacity of 100,000 kilowatts with provision for enlargement to one million kilowatts, as required. Power from this plant is expected to be available late in 1961. Natural gas may be used at certain times instead of coal, if it becomes available in sufficient quantity and at a price competitive with coal. The plant has been designed so that it can be adapted to burn either fuel.

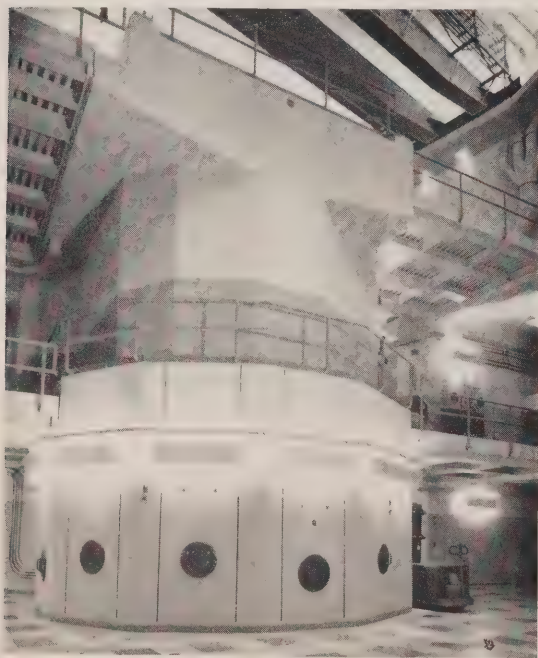
Expansion of the Richard L. Hearn Generating Station at Toronto, Canada's largest thermal-electric plant, is now complete. The first of four new 200,000-kilowatt units was brought into service in 1959, the second and third units during 1960 and the fourth in March of this year. The plant now has a total installed capacity of 1.2 million kilowatts. Four 100,000-kilowatt units have been in operation since 1953.

Construction of the Red Rock Generating Station, begun in 1958, was completed in January of this year when the second 20,000-kilowatt unit was brought into service. This station is located about 14 miles northeast of Thessalon on the Mississagi River.

The Commission also began to develop some of the hydro sites still available for economic utilization in the northern parts of the Province. These represent a potential of two million kilowatts, about 1.5 million of which are in Northeastern Ontario. Early in 1960, the Chairman of Ontario Hydro announced a \$182 million development plan for the James Bay watershed. An extra-high-voltage transmission system will eventually bring power from hydro sites in that area to the heavy demand centres in Southern Ontario. The six-year construction program will involve three new stations on a 12-mile stretch of the Mattagami River plus North America's first major 460,000-volt transmission system, which will extend as far south as the Barrie area and in time to Toronto, a distance of some 500 miles. Its first stage will be built to Sudbury.

Work has already begun on the southernmost plant, Little Long Generating Station, about 40 miles north of Kapuskasing. It is scheduled for completion by October of 1963 and has a tentative initial capacity of 114,000 kilowatts in two units. By October of 1965, Harmon Generating Station, down river at Upper Long Rapids is scheduled for initial operation with a capacity of 110,000 kilowatts in three units. The third plant, Kipling Generating Station, will be still farther downstream. Preliminary plans call for three units with a total capacity of 132,000 kilowatts by October of 1966. Provision is being made for the eventual installation of additional units as required, two at Little Long, three at Harmon and four at Kipling.

Some 30 miles east, Hydro is already building a station



Courtesy—Tom Bochsler, Hamilton, Ontario.

The reactor pool of the atomic reactor at McMaster University, Hamilton, Ontario. The concrete walls of the pool serve both to contain the water circulating around the core and to shield workers from radiation generated by the reactor.

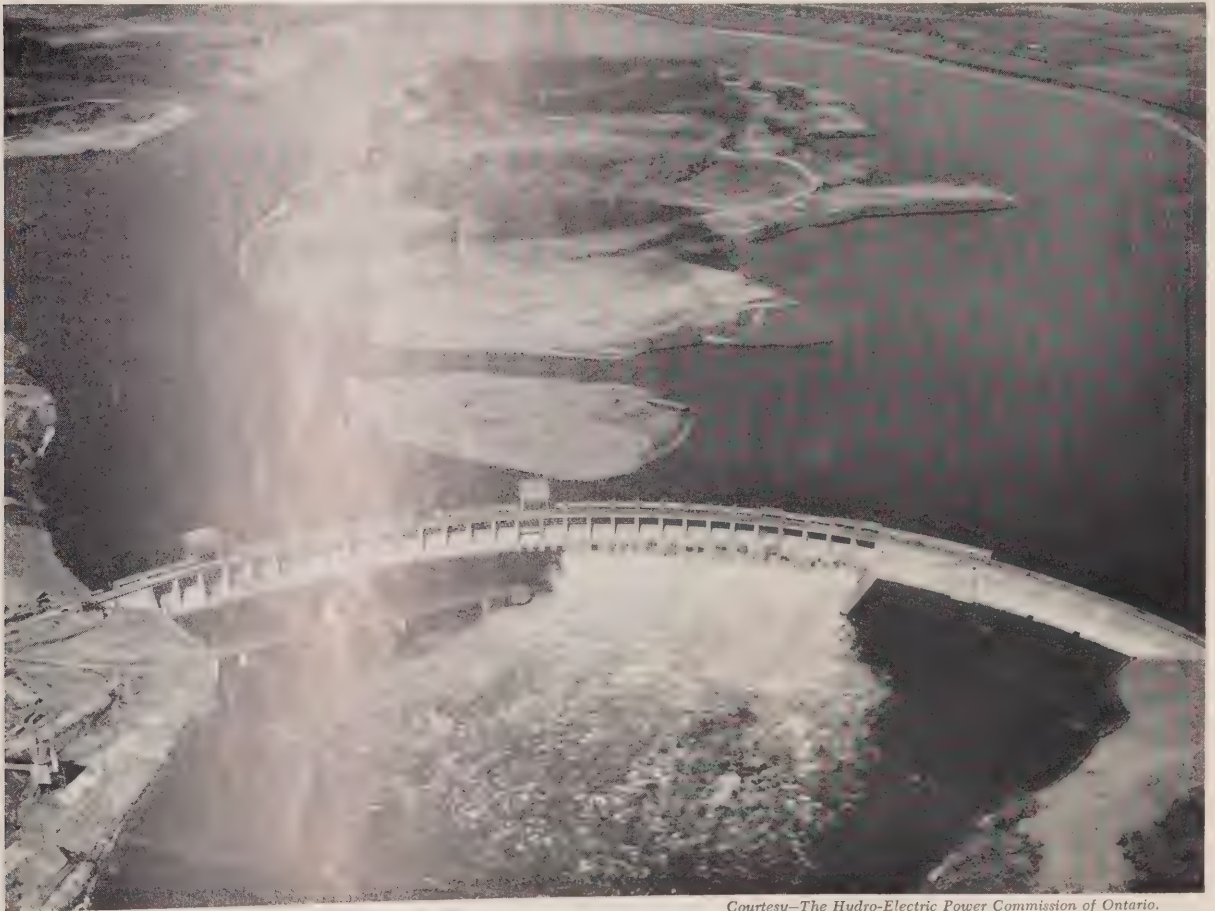
at Otter Rapids on the Abitibi River. Four units with a total dependable peak capacity of 172,000 kilowatts are now in the construction program and minimum provision is being made for the addition of four more. Two units are scheduled for service in the fall of 1961 and two in 1963.

Two river diversions will increase the flow of water to the four stations and improve their operation—the Little Abitibi River will be diverted into the Abitibi upstream from Otter Rapids and the Opasatika River into the Mattagami upstream from Little Long Rapids. A third diversion project will permit excess water from the Mattagami River at the Little Long Rapids site to by-pass the two lower sites during flooding periods, with an estimated saving of \$13 million in development costs.

These four stations in the Moose River System will have a total capacity of 528,000 kilowatts by 1966. Power will be transmitted at 230,000 volts to a new terminal station near the existing Abitibi Canyon generating plant,

about 230 miles north of Sudbury. The line from this gathering point to the Sudbury area is scheduled for service in 1963, along with the first Mattagami plant and the third and fourth units at Otter Rapids. It will be designed for 460,000 volts but will operate at 230,000 volts until the second Mattagami Station starts up in 1965.

By building an extra-high-voltage transmission system instead of several conventional circuits, it is estimated that Hydro will save millions of dollars in transmission costs. Tests on a special extra-high-voltage line which was built at Coldwater, near Orillia, were begun in the summer of 1959. These are providing data which were previously unavailable. Studies have shown that the six-year development plan for Northeastern Ontario, incorporating extra-high-voltage transmission will be more economic than equivalent thermal-electric generation. The extra-high voltage will provide power carrying capacity about four times that of lines operating at 230,000 volts, the highest voltage now used in Ontario.



Courtesy—The Hydro-Electric Power Commission of Ontario.

Aerial view of the Long Sault Dam which plays an important part in the control of the waters for the headpond of the St. Lawrence Power Project.

One of the world's largest engineering projects was concluded in July, 1959 with the completion of Ontario Hydro's frequency standardization program. Begun in 1949, the program of changing from 25-cycle to 60-cycle frequency was finished more than five years ahead of the original schedule. During the operation, nearly seven million frequency sensitive appliances were modified or exchanged for more than one million customers.

With the virtual disappearance of the lower frequency, Ontario Hydro and the associated municipal utilities will realize important savings in the production and distribution of electricity. This will have a long-term effect in keeping Ontario's electrical rates among the lowest in the world.

According to latest forecasts made by Ontario Hydro, total resources necessary to meet their estimated demand for power in 1980 and still provide for adequate reserves will be nearly 22 million kilowatts. If a high rate of nuclear development is assumed in minimum stages of

200,000-kilowatt units, about 36 per cent, 7.9 million kilowatts, will be provided by conventional thermal stations, 34 per cent, 7.4 million kilowatts, by nuclear thermal stations and the remaining 30 per cent, 6.4 million kilowatts, by hydro-electric facilities.

The Commission's transmission and distribution networks were extended during 1960 by the net addition of 116 circuit miles of transmission line and 680 circuit miles of rural distribution line. The number of rural customers served increased by about 8,400 to 499,500.

Coal

For many years coal has been the major source of energy in Ontario. Its uses have been manifold: the direct heating of homes, offices and shops; the source of manufactured gas for heating and cooking; the source of steam for operating railway engines and industrial machinery and for driving turbines to generate electricity; the source of coke for use in steel mills, and many other purposes.



Courtesy—The Hydro-Electric Power Commission of Ontario.

The Otter Rapids Generating Station on the Abitibi River. The first two units are scheduled for operation in 1961. By 1963, another two units will have been added, bringing capacity to 172,000 kilowatts. Provision is being made for the installation of four more units as required.

Since the Second World War, however, the railways have been converting to diesel fuel and petroleum fuels have been replacing coal for heating homes and offices. More recently, natural gas has been replacing manufactured gas as a residential fuel; it has also been taking over from coal as a residential fuel and even, in some cases, as an industrial fuel.

Today, there are three major uses for coal: it continues to be an important fuel for homes, offices and businesses; its employment in metallurgical processes will go on rising, although the amounts consumed will vary with fluctuations in the rate of activity in the metallurgical industries; and it will become increasingly significant in the thermal generation of electric power, until nuclear power is introduced for base load operations. As a source of steam for railway traction it has lost its significance now that dieselization of our major railways has been virtually completed.

COAL MADE AVAILABLE FOR CONSUMPTION IN ONTARIO, 1945 TO 1960

(Short Tons)			
1945	18,405,684	1953	18,946,285
1946	20,059,660	1954	15,582,609
1947	22,639,470	1955	16,615,148
1948	24,375,504	1956	19,596,913
1949	15,985,501	1957	17,159,762
1950	22,007,264	1958	11,915,738
1951	21,466,620	1959	12,194,546
1952	19,940,523	1960	11,139,942

The overall downward trend and the fluctuations, sometimes considerable, in the annual amounts of coal made available in Ontario in recent years, reflect changes in the rate of industrial activity and the introduction of new technology and sources of fuel. Particularly noteworthy were the four-year decline following 1950, the fact that the amount of coal available in 1954 was less than in 1949 and that the 1956 total was below that for 1952, the precipitous drop in 1958, and a further decline in 1960.

RETAIL SALES AND INDUSTRIAL CONSUMPTION OF COAL AND COKE IN ONTARIO, SELECTED YEARS 1948 TO 1960

	Sales by Retail Fuel Dealers	Consumption by Industrial Users	Total
(Thousands of Short Tons)			
1948	6,407.1	8,153.7	14,560.8
1951	5,214.9	8,700.7	13,915.6
1956	3,694.1	10,662.9	14,357.0
1958	2,865.0	9,369.4	12,234.4
1959	2,581.1	9,548.9	12,130.0
1960	2,277.4	8,330.9	10,608.3
% Change 1956/1948	-42.3	+30.8	-1.4
% Change 1959/1956	-30.1	-10.4	-15.5
% Change 1960/1948	-64.5	+2.2	-27.2

Note: A relatively small amount used in the northern and southwestern regions of Quebec is included.

For a number of years there has been a sustained decline in retail sales of coal and coke to householders and businesses. Until 1956, however, this was almost offset by a strong upward trend in consumption by industrial users.

In 1958, both categories declined, while in 1959, retail sales continued to fall, and both declined again in 1960.

All the coal consumed in Ontario is imported. Because of its bulk and weight and the resulting high costs of transporting it over long distances, all but two or three per cent comes from the rich coal fields of Ohio and Pennsylvania rather than from Alberta, Saskatchewan or the Maritimes. The United States supplies our anthracite as well as the bulk of our bituminous requirements. In the past, two-thirds of our coal receipts from Canadian provinces has been lignite from Saskatchewan, but by 1960 this proportion had declined to 23 per cent.

TYPES OF ONTARIO COAL SUPPLIES, BY SOURCE, 1960

Type of Coal	Imports from U.S.	Imports from Canadian Provinces	Total Receipts
(Thousands of Short Tons)			
Anthracite.....	708.0	—	708.0
Bituminous.....	10,070.6	263.6	10,334.0
Sub-Bituminous.....	—	14.4	14.4
Lignite.....	—	83.7	83.7

Our growing metallurgical industries and expanding demand for electric power imply a vast increase in Ontario's coal requirements in the future. In 1954, about 5.4 per cent of the electric power generated in Ontario was from thermal stations and by 1957 the proportion had increased to seven per cent of a larger total. It is estimated that by 1970 our requirements for electric power will have more than doubled and that about half the total will be provided by thermal generation stations using coal or nuclear energy. The implications in terms of dependence upon United States coal and of the need for United States dollars to pay for this supply, make it necessary to strive for the introduction of nuclear power generation as soon as it is economically feasible—particularly in view of our large supplies of uranium.

Petroleum

From 1946 to 1958, Ontario's consumption of petroleum fuel increased by 326 per cent, while consumption of gasoline rose by 187 per cent. The expansion of highways and in the numbers of automobiles, buses, trucks, diesel railway engines, and household petroleum furnaces and heaters contributed the primary impetus to the demand for these fuels.

Consumption of gasoline in Ontario has increased every year since 1946, despite the recessions of 1949 and 1954, and this may be said also for petroleum fuels, with the exception of 1949. Consumption of petroleum fuels has increased at a higher rate in Ontario than in the rest of Canada, and consequently Ontario's proportion of Canada's consumption has risen from 29.6 per cent to 36.3 per cent. With the exception of 1955, the use of

petroleum coke fuel has been limited to Ontario alone since 1952.

CONSUMPTION OF PETROLEUM FUELS AND GASOLINE IN ONTARIO AND CANADA, 1946 TO 1959

	Petroleum Fuels		Petroleum Coke Fuel		Gasoline	
	Ontario	Canada	Ontario	Canada	Ontario	Canada
	(Millions of Gals.)		(Tons)	(Tons)	(Millions of Gals.)	
1946	377.9	1,275.1	22,091	24,193	451.3	1,212.6
1947	499.2	1,657.2	23,500	30,828	501.4	1,371.6
1948	502.8	1,755.2	71,962	72,399	562.5	1,517.6
1949	434.4	1,706.1	59,967	71,236	623.7	1,683.7
1950	561.1	2,034.3	102,808	103,481	687.7	1,843.0
1951	729.9	2,431.0	73,080	75,901	766.5	2,049.8
1952	790.7	2,705.5	15,602	15,602	844.2	2,343.7
1953	883.9	2,923.4	12,111	12,111	928.5	2,548.7
1954	1,081.4	3,389.7	10,080	10,080	991.4	2,698.0
1955	1,257.6	3,943.0	8,532	8,547	1,100.0	2,902.5
1956	1,483.3	4,501.5	7,097	7,097	1,198.6	3,178.1
1957	1,558.4	4,633.8	18,310	18,310	1,237.7	3,349.2
1958	1,608.0	4,746.4	3,279	3,279	1,295.8	3,544.9
1959	1,759.0	5,140.3	2,691	2,691	1,341.2	3,691.0
% rise						
1959 1946	365.5	303.1	—	—	197.2	204.4

In 1945, most of Ontario's crude oil supply was imported from the United States. In 1960, however, 93.5 per cent came from the Prairie Provinces, 1.3 per cent from Ontario wells and only 5.2 per cent from foreign sources, with the United States as the smallest contributor to Ontario's supply. The following table shows that there were remarkable changes in Ontario's sources since 1958.

CRUDE OIL CONSUMPTION AND SOURCES OF SUPPLY IN ONTARIO 1958 AND 1960

Sources of Crude Oil Supply	Crude Oil Consumption in Ontario		Percentage of Total Ontario Consumption	
	1958	1960	1958	1960
	(Barrels of 35 Imperial Gallons)			
Ontario.....	777,116	1,008,070	1.2	1.3
Prairies.....	59,552,700	70,830,655	92.5	93.5
Trinidad.....	868,296	1,447,384	1.3	1.9
Venezuela.....	1,479,866	2,381,641	2.3	3.2
United States.....	1,713,542	79,846	2.7	0.1
All Sources.....	64,391,520	75,747,596	100.0	100.0

With about 26 per cent of the nation's refining capacity in 1960, Ontario received 27 per cent of all the crude oil delivered to Canadian refineries, and 48 per cent of the Canadian crude delivered to Canadian refineries. Crude oil receipts in Ontario expanded by 209 per cent from 1946 to 1960, and the proportion received from Canadian wells expanded from 0.5 per cent in 1946 to 94.8 per cent in 1960. The following table indicates these changes and shows the impact of the entry of Canadian crude in 1951 and the opening of the Interprovincial crude oil pipeline from Edmonton to Sarnia in 1954. Although Ontario's imports of foreign crude declined by more than 90 per cent from 1946 to 1959, Canada as a whole increased its imports of foreign crude by 84 per cent, i.e., the other

provinces increased their aggregate imports of foreign crude by 192 per cent.

RECEIPTS OF CRUDE PETROLEUM IN ONTARIO AND CANADIAN REFINERIES, SELECTED YEARS 1946 TO 1960

	Ontario Refineries			Canadian Refineries		
	Canadian Crude*	Imported Crude	Total Crude	Canadian Crude	Imported Crude	Total Crude
	(Thousands of Barrels)					
1946	122.0	24,375.5	24,497.5	6,900.7	63,342.8	70,333.5
1950	248.6	25,050.1	25,298.7	26,317.7	81,790.9	108,108.6
1951	13,855.1	15,943.3	29,798.4	47,185.9	83,139.6	130,325.5
1953	22,954.2	11,066.5	34,020.7	69,345.6	81,406.1	150,751.7
1954	35,284.9	8,808.2	44,093.1	92,679.8	76,773.0	169,452.9
1956	49,124.4	9,098.9	58,226.3	125,592.1	106,305.5	231,897.6
1957	49,996.1	8,059.5	58,055.6	126,914.2	111,706.7	238,620.9
1958	60,329.8	4,061.7	64,391.5	134,514.0	107,444.7	241,958.7
1959	72,430.0	2,385.0	74,815.0	151,507.8	116,342.3	267,850.0
1960	71,838.7	3,908.9	75,747.6	150,816.2	126,210.7	277,026.9

*Includes some refined petroleum.

By far the largest proportion of Ontario's receipts of both Canadian and foreign crude is delivered to Sarnia. The extraordinary growth in the Province's requirements of crude oil is reflected in the fact that, despite the rapid expansion of the flow of Canadian crude through the Interprovincial pipeline, by 1956 the flow of Canadian crude into Ontario through other channels had begun to approach the rate of 1951.

SARNIA PIPELINE RECEIPTS OF CANADIAN AND FOREIGN CRUDE COMPARED WITH ONTARIO RECEIPTS THROUGH OTHER CHANNELS, 1951 TO 1957

	Deliveries of Canadian Crude in Ontario			Deliveries of Foreign Crude in Ontario		
	Ontario Crude	Sarnia Receipts Through Interprovincial Pipeline	Ontario Receipts of Canadian Crude, Other Channels	Receipts at Sarnia Sun and Buckeye Pipeline	Receipts at Sarnia Transit and Storage	Ontario Receipts of Foreign Crude, Other Channels
	(Thousands of Barrels)					
1951	197.2	—	13,657.9	580.4	13,185.9	2,177.1
1952	191.8	—	19,838.4	603.6	7,441.2	5,612.7
1953	299.7	—	22,654.5	1,396.7	5,967.0	3,702.7
1954	412.5	31,323.6	4,548.8	5,134.0	177.2	3,497.0
1955	525.5	33,247.8	5,075.5	5,312.2	—	4,642.3
1956	593.4	40,478.6	10,711.7	6,424.4	—	2,674.5
1957	621.7	37,822.3	n.a.	6,107.9	—	n.a.

n.a. Not available.

Ontario Production of Crude Oil: In 1959, there were 1,527 operating oil wells in Ontario, providing employment for 205 persons and producing an output valued at over \$2.5 million. In 1946, Ontario had operated 1,629 out of a total of 2,314 oil wells in Canada. Since then, the number for Ontario has declined while there has been a remarkable increase in opening of new oil wells in western Canada. Although the growth in physical output and value of production in western Canada has overshadowed the rise in Ontario, output in Ontario in 1959 was more than 8.1 times the level of 1946 and value of production was eleven times as high, despite the decline in the number of wells operating in Ontario.

**CRUDE PETROLEUM PRODUCTION IN ONTARIO,
1946 AND 1956 TO 1959**

	Quantity (Barrels)	Value \$
1946	123,082	291,719
1956	593,370	1,958,121
1957	623,666	2,160,000
1958	778,341	2,623,000
1959	1,001,580	3,194,000

The Petroleum Refining Industry: The number of plants producing petroleum products in Ontario declined from 15 in 1946 to 14 in 1958, but employment rose from 3,242 to 5,337 and gross selling value from \$84.9 million to \$393.5 million.

By far the largest sector in the petroleum products industry is the petroleum refining industry. Although the number of operating refineries in Ontario in 1958 was unchanged from 1946, employment had expanded considerably and crude oil capacity had more than tripled.

**THE PETROLEUM REFINING INDUSTRY IN ONTARIO AND CANADA,
1946, 1956 AND 1958**

	Ontario			Canada		
	No. of Operating Refineries	No. of Employees	Crude Oil Capacity (Barrels/day)	No. of Operating Refineries	No. of Employees	Crude Oil Capacity (Barrels/day)
1946	6	3,179	77,950	30	7,048	245,865
1956	6	5,299	163,950	41	13,489	706,350
1958	6	5,149	207,850	40	13,799	803,050

Manufactured and Natural Gas

Although natural gas has supplied a relatively small proportion of Ontario's energy requirements—about 5.6 per cent in 1958—it is destined to play an increasingly important role. With the completion of the trans-Canada pipeline, massive quantities of natural gas from Alberta and other western provinces have been made available to consumers across the length and breadth of Ontario.

Sales of natural gas have been increasing at a rapid rate in recent years, and have reduced the sales of manufactured¹ gas by more than half. The sharp increase in natural gas sales in 1955 was due mainly to the conversion of Metropolitan Toronto to natural gas. In that year about half the natural gas customers were located in the Toronto area. The increases in 1956 and 1957 were due to gains in the Toronto area and to expansion elsewhere in Southern Ontario. The trans-Canada natural gas pipeline was completed on October 10, 1958, and two weeks later Alberta natural gas became available in southeastern Ontario. Retail sales of Alberta natural gas began in

¹Manufactured gas is produced from coal and has therefore been included in the coal statistics, rather than listed as a separate item, in the aggregates discussed in the first section, in order to avoid double counting.

December, 1957, at Kenora in the Northwestern Region, February 1, 1958, at Port Arthur, and October 27 at Kapuskasing, North Bay and Toronto. The steep rise in sales in 1958 lifted them to almost five times the level reached eight years earlier.

**SALES OF NATURAL AND MANUFACTURED
GAS IN ONTARIO, 1950 TO 1960**

	Natural Gas	Manufactured Gas
	(Millions of Cubic Feet)	
1950	10,460.8	13,316.0
1951	11,105.4	13,447.0
1952	11,614.6	13,435.4
1953	12,511.1	12,867.2
1954	14,589.9	12,762.7
1955	20,665.9	5,041.8
1956	27,874.5	5,090.7
1957	35,020.1	5,079.7
1958	51,858.5	1,424.6
1959	83,005.9	n.a.
1960	103,864.3	n.a.

n.a. Not available.

Manufactured Gas: Despite the reduction in sales of manufactured gas, Ontario consumption of this product continued to increase in 1955 and 1956. The change-over to natural gas had occurred during an upswing in industrial production with the result that the manufactured gas displaced in the market was absorbed by the producers and associated metallurgical works. This gas is a by-product of the necessary production of coke and other coal products. During 1957, however, manufacturing production lost its impetus, and a drop in consumption of manufactured gas by producers and associated metallurgical works reduced total consumption below the level of 1955. The declines in 1949, 1954 and 1957 indicate that the rate of consumption is sensitive to fluctuations in the manufacturing economy. This sensitivity has been evident to some extent in the volume of sales, but primarily in the use of the product by the manufacturers and associated metallurgical works.

**SALES, TOTAL CONSUMPTION, AND CONSUMPTION BY
PRODUCERS¹ OF MANUFACTURED GAS IN ONTARIO,
SELECTED YEARS 1945 TO 1958**

	Sales Volume	Total Consumption	Consumption ¹ by Producers
	(Millions of Cubic Feet)		
1945	11,439.4	40,602.2	26,832.3
1946	11,758.6	34,905.9	21,940.6
1948	13,085.1	44,544.2	29,389.5
1949	12,858.4	41,784.6	26,991.6
1953	12,867.2	49,109.2	33,517.9
1954	12,762.7	39,215.0	23,786.7
1955	5,051.8	41,779.6	33,649.0
1956	5,090.7	45,502.0	38,078.1
1957	5,079.7	41,524.8	33,674.4
1958	1,424.6	33,561.3	28,923.8

¹Includes consumption by associated metallurgical works.

Natural Gas: The production and use of natural gas in Ontario dates from 1890, and has been characterized by the operation of wells that have supplied customers,

primarily householders, in their immediate areas in southwestern Ontario.

Ontario's output of natural gas increased slowly until 1908, and then expanded rapidly to reach a peak of 20,000 MMCF¹ in 1917. Following World War I, production declined to about 8,000 MMCF and remained at this level until 1936, when it began to climb to the peak of 13,000 MMCF in 1940. During the war, production amounted to about 7,000 MMCF. In 1947 output rose slightly to 7,800 MMCF and thenceforth remained at a little over 8,000 MMCF until 1953, when production began to expand once more.

PRODUCTION OF NATURAL GAS IN
ONTARIO, 1936 TO 1959

	Output		Output
	(Millions of Cubic Feet)		
1936	10,006.7	1948	8,590.4
1937	10,746.3	1949	8,024.2
1938	10,952.8	1950	8,009.5
1939	11,966.6	1951	8,442.8
1940	13,053.4	1952	8,302.2
1941	11,828.7	1953	9,709.0
1942	10,476.8	1954	10,015.8
1943	7,914.4	1955	10,852.9
1944	7,082.5	1956	12,811.6
1945	7,200.0	1957	14,400.9
1946	7,051.3	1958	16,148.0
1947	7,785.9	1959	16,839.2

The extent of the difficulties encountered in increasing production may be inferred from the manner in which output changed in the producing fields in 1955. During 1955, East Elgin and Brant County increased output by about 50 per cent, Essex County by 300 per cent, Lambton 13 per cent, Norfolk over 18 per cent, Haldimand and Welland counties combined 5.8 per cent, and Kent 6.3 per cent. These gains were accompanied by declines of 35 per cent in the Mosald pools in Middlesex and Elgin and eight per cent in Oxford County. As a result, the decline in flow from old wells was more than offset by increases in others, so that total output rose by 837.1 MMCF, or 8.4 per cent. In some years the increases were not sufficient to offset the declines.

The counties of Lambton, Kent, Haldimand, Norfolk and Welland produce more than 95 per cent of the total output, and in 1957 were the scene of over 70 per cent of gas well completions. Of a total of 2,931 commercial wells in 1958, these five counties possessed 71 per cent.

In 1956, various companies began to drill wells in Lake Erie adjacent to Kent County. Off Romney Township 14 were completed, as well as three off Howard Township. In 1958, some 20 more wells were completed in Lake Erie bringing the total to 94. Licences were granted for the exploration of 869,558 acres of Crown Land under Lake Erie.

¹MMCF indicates million cubic feet.

Despite the opening of many new wells, output in Ontario since the Second World War has not been sufficient to satisfy demand. During the latter part of the war and in the immediate post-war years—particularly in the winter of 1947-48—many customers who had previously relied upon natural gas found it necessary to convert to other fuels. The offices of the Ontario Government were enlisted to assist in the conversion of their facilities. This experience pointed up the necessity of obtaining an increased and dependable supply of natural gas.

NATURAL GAS OUTPUT AND SALES IN ONTARIO, 1950 TO 1960

	Output	Sales
	(Millions of Cubic Feet)	(Millions of Cubic Feet)
1950	8,009.5	10,460.8
1951	8,442.8	11,105.4
1952	8,302.2	11,614.6
1953	9,709.0	12,511.1
1954	10,015.8	14,589.9
1955	10,852.9	20,665.9
1956	12,811.6	27,874.5
1957	14,400.9	35,020.1
1958	16,148.0	51,858.5
1959	16,839.2	83,005.9
1960	n.a.	103,864.3

At the end of the 19th Century Ontario was exporting natural gas to Buffalo and Toledo. But by 1907, depletion of wells brought a ban on further exports. From about 1918, the Niagara area of Ontario imported minor amounts of natural gas from the United States. In 1949, a second United States source of supply was authorized on a fairly limited basis. The authorized volume through Detroit was later increased in order to supplement local production in southwestern Ontario. In 1954, a third United States source became available with the completion of the 20-inch pipeline from Niagara to Toronto—subsequently extended through eastern Ontario to Ottawa and Montreal.

SOURCES OF ONTARIO'S SUPPLY OF NATURAL GAS
1955, 1957 AND 1959

	1955	1957	1959
	MMCF* ^{% of} Total	MMCF* ^{% of} Total	MMCF* ^{% of} Total
Total supply	22,561.0 100.0	42,044.2 100.0	87,908.0 100.0
Ontario production	10,852.9 48.2	14,400.9 34.3	16,839.2 19.2
Supplementary supply	11,708.2 51.8	27,643.3 65.7	71,068.8 80.8
Imported natural gas:			
Alberta via Northern Ontario	—	—	59,414.6
U.S.A. at Windsor	5,413.7	10,593.2	11,303.7
U.S.A. at Niagara	5,758.2	16,699.8	—
U.S.A. at Fort Erie	179.9	292.6	3.5

*MMCF indicates million cubic feet.

Prior to the completion of the trans-Canada pipeline, the demand for increased supplies of natural gas had been met by imports from the United States. This situation was radically altered when the first gas from Alberta reached

the Province in 1958. To complement the trans-Canada line, the natural gas distributing companies in Ontario had been engaged in a large scale construction program and in 1958 nearly 3,000 miles of new transmission lines were laid.

The availability of plentiful supplies of natural gas led to the remarkable rise in sales that has occurred since 1957. There has also been a marked change in the pattern of distribution to the three categories of consumers. As more natural gas became available, industrial users steadily

rose in importance, and in 1959, used as much gas as the residential consumers in Ontario.

DISTRIBUTION OF NATURAL GAS SALES IN ONTARIO,
1954, 1957 AND 1959

	(Billions of Cubic Feet)						% Change 1959/1954
	1954		1957		1959		
	Amount	% of Total Sales	Amount	% of Total Sales	Amount	% of Total Sales	
Residential Sales	10.7	73.3	21.8	62.3	37.1	44.6	247
Commercial Sales	1.7	11.6	4.4	12.6	9.1	10.9	435
Industrial Sales	2.2	15.1	8.8	25.1	37.1	44.5	1,586
Total Sales	14.6	100.0	35.0	100.0	83.3	100.0	470

Manufacturing

The Importance of Manufacturing in Ontario

To a large extent the economic prosperity of Canada is directly dependent on the health of Ontario's manufacturing industry. The Province of Ontario—which accounts today, as it has since Confederation, for half of Canada's manufacturing output—is the most important industrial area of Canada and one of the leading industrial regions of the world. Ontario's manufacturing establishments, although numbering only slightly more than one-third of the Canadian total, employ nearly one-half of the manufacturing workers in the country. In 1960 they accounted for almost half (\$11.7 billion) of the national selling value of factory shipments and for slightly over half of the net value of production. In the Province, manufacturing provided about 30 per cent (610,000) of all jobs and about 36 per cent of all salaries and wages.

Indirectly, manufacturing creates employment in a wide variety of activities in other sectors of the economy. Raw materials from forests and mines are used in most manufacturing operations; food and other farm products are required to feed and clothe the urban industrial workers and their families; financial and advertising services are necessary for the daily conduct of business; much of our construction industry is supported by the capital programs of our manufacturing establishments, and extensive and complex transportation facilities must be operated to carry on the multiplicity of transfers of our manufactured goods. Thus our manufacturing industries contribute to our economy not only through the creation of employment and income within the industries themselves but also through the indirect creation of employment and income in related industries and services.

The expansion and diversification of manufacturing in Ontario in recent years have been important factors in strengthening and providing a better balance for the Canadian economy. By manufacturing goods such as chemicals, and electronic and mining equipment, our dependence on imports has been reduced and employment in Canada has been increased and living standards raised. The existence of a strong manufacturing industry here has added significantly to our national security by giving us an industrial base which can be utilized more fully at a time when our supply of manufactured goods from foreign countries is endangered. It has also fostered the development of "know-how" at all levels of management and production—so essential to the growth of our economy in a complex technological age. The diversification of manufacturing, by spreading employment through a much wider range of industries, has helped to cushion our economy from maladjustments in particular industries. By supplying the resource industries of Ontario and other provinces with manufactured goods, we have reduced our dependence on foreign manufactures while retaining our position as the world's fourth trading nation.

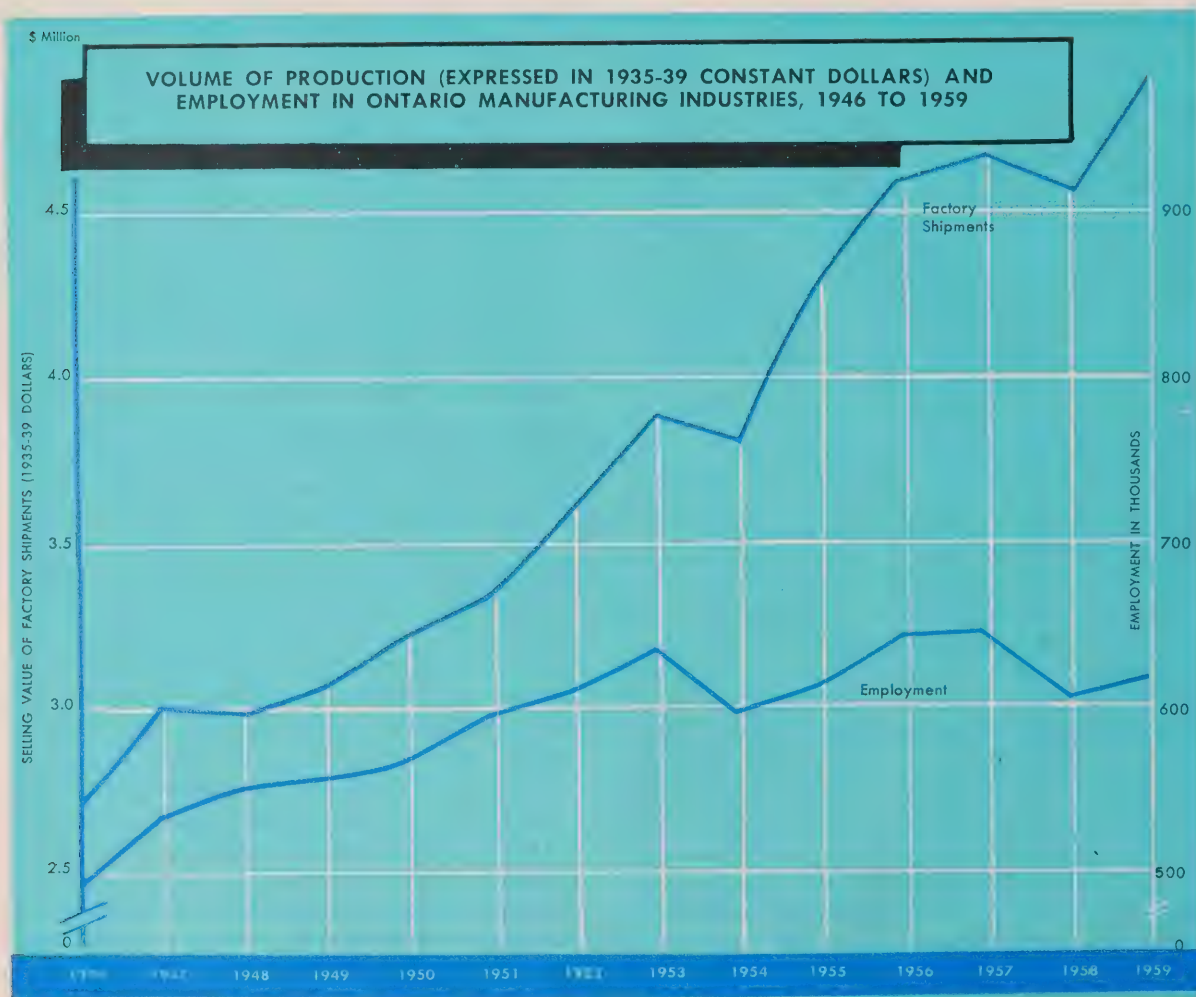
Although relative to Europe, the growth of manufacturing in Ontario is new, we already have a large vested interest in existing plant and equipment. More than five billion dollars has been invested in new factories, machinery and equipment in this Province in the last ten years alone. Many additional billions of dollars in both public and private capital have been spent to supply the services necessary to our manufacturing operations. Manufacturing has contributed greatly to the urbanization of our population. New communities have sprung into existence and

older communities have expanded into metropolitan centres based upon manufacturing and commercial operations. The opportunities for employment presented by our expanding manufacturing industries have allowed this Province to absorb a high rate of immigration. If employment is to be found for the vast increase in our labour force which is expected before the end of the 1960's, the expansion of our manufacturing industries must continue.

The Growth of Manufacturing in Ontario

In 1870 Ontario's manufacturing establishments employed 87,000 workers and produced goods valued at \$115 million. By 1959 these figures had grown to 615,000

workers producing goods valued at over \$11.8 billion. A great deal of this expansion has taken place in the 15 years since the end of the Second World War. In current dollars, 1959 production was well over three times the 1946 production figure and over six times that of 1939, while in constant dollars the 1959 level was close to two and a half times that reached in 1946. This recent growth has been at a faster rate than Ontario's Gross Provincial Product and therefore indicates that in relation to the pre-war period, manufacturing has increased its importance in our economic structure. Although all sectors of the Ontario economy have advanced in the post-World War II period, the net value of manufacturing output increased from under 64 per cent of all commodities produced in the Province in 1946 to almost 68 per cent in 1959.



**GROWTH OF MANUFACTURING IN ONTARIO,
SELECTED YEARS 1870 TO 1959**

	Employees		Salaries and Wages		Gross Value of Products ¹	
	(000's)	% of Canada	(\$ Millions)	% of Canada	(\$ Millions)	% of Canada
1870	87	46	21	52	115	52
1880	118	46	31	52	158	51
1890	166	45	50	50	239	51
1900 ²	162	48	57	50	242	50
1910 ²	239	46	118	49	580	50
1920	296	49	363	51	1,864	50
1921	221	50	264	53	1,290	52
1929 ³	329	49	407	52	2,021	52
1939	319	49	378	51	1,746	50
1943	570	46	956	48	4,221	48
1946	498	47	845	49	3,755	47
1949	557	48	1,306	50	6,104	49
1953	635	48	2,018	51	8,877	50
1957	644	47	2,431	50	11,122	51
1958	607	47	2,419	50	10,864	49
1959 ⁴	615	47	2,555	50	11,831	50

¹From 1953, value is selling value of factory shipments rather than gross value of products.

²Includes only establishments with five or more employees.

³The number of employees for 1929 is overstated as a result of the use of a different method of calculating employment.

⁴Estimated by the Ontario Department of Economics.

Ontario's first major manufacturing industry, the milling of flour for export to Britain, originated with the Napoleonic Wars which also stimulated the lumbering industry. A second phase of industrial expansion followed the American Civil War and was sustained by a rapid extension of settlement, railway construction and foreign investment capital. In 1878 the "National Policy" of the Canadian Government stimulated Trans-Continental railway construction and established protective tariffs to encourage industries. Between 1870 and 1890 manufacturing employment in Ontario almost doubled while the value of production more than doubled. The greatest part of this expansion was contributed by Ontario's iron and steel industry which provided much of the material used in railway construction.

The large inflow of investment capital and immigrants after 1896, which contributed to the settlement of the Western Provinces, gave Ontario manufacturers growing markets for their products. As a result, net value of factory production increased by 173 per cent between 1900 and 1910.

The First World War sharply increased the demand for the products of the iron and steel, shipbuilding and non-ferrous metal smelting and refining industries. Demand for explosives established a durable base for an expanding chemical industry. In the post-war period new techniques permitted the pulp and paper industry to become the largest industry in the Province and one of Canada's main exporters. The manufacture in Ontario of agricultural implements at this time became efficient enough to compete successfully in world markets as well as to supply increased demand at home.

Following the general economic decline during the 1930's, the Second World War stimulated a tremendous growth and diversification in manufacturing in Ontario.

Such industries as motor vehicles, aircraft and shipbuilding were converted to mass production for the war effort; synthetic rubber production became an important industry and other strategic goods such as aluminum products, electrical apparatus and chemicals expanded rapidly. The sharp reduction of imports meant that consumer demand for textiles, apparel, shoes and many other consumer goods had to be satisfied from domestic production. It was in the post-war period, however, that the most rapid expansion took place in manufacturing activity. With the brief exceptions of 1954 and 1958, the value of factory shipments has grown each year from 1946 to the present.

This growth has been due in part to the many natural advantages which Ontario has for the establishment of manufacturing industries. It is situated at the centre of the major markets of Canada and the United States. Its proximity to the huge industrial complex south of the Great Lakes has given it a significant advantage over other areas of Canada. The fertile lands of Southern Ontario, and the temperate climate, have permitted the establishment of an agricultural base sufficient in size to support large urban communities. A wide variety of natural resources has given Ontario the raw materials for the development of diversified industries. The completion of the St. Lawrence Seaway has added still another dimension to a highly integrated transportation network. The availability of low cost power, natural gas and other forms of energy has also encouraged the development and expansion of industry within the Province.

Important as these natural advantages have been to the development of manufacturing in Ontario, they alone would not have assured the growth of an industrial structure of the diversity and scope that now exists. To them have been added dynamic influences. In the years since 1946 the most important of these forces have been the expansion of export markets, the discovery and development of natural resources, the growth of domestic demand, improvements in technology, favourable government policies and the inflow and creation of enormous quantities of capital.

During and immediately after the war, the industrialized countries of Europe were unable to fulfil their traditional position as suppliers of manufactured goods to the markets of the world. As a result, industries grew up in Canada and Ontario which might otherwise never have been founded. Export markets were established, particularly in the Commonwealth and South American countries, for both manufactured goods and raw materials. Because of import restrictions and the resurgence of the manufacturing industries of other countries, our exports of manufactured goods have since shown a relative decline in importance although overall exports have continued to rise substantially. Almost two-thirds of our 1959 exports of over \$5.1 billion were accounted for by raw materials and semi-manufactured products. Ontario has not only supplied

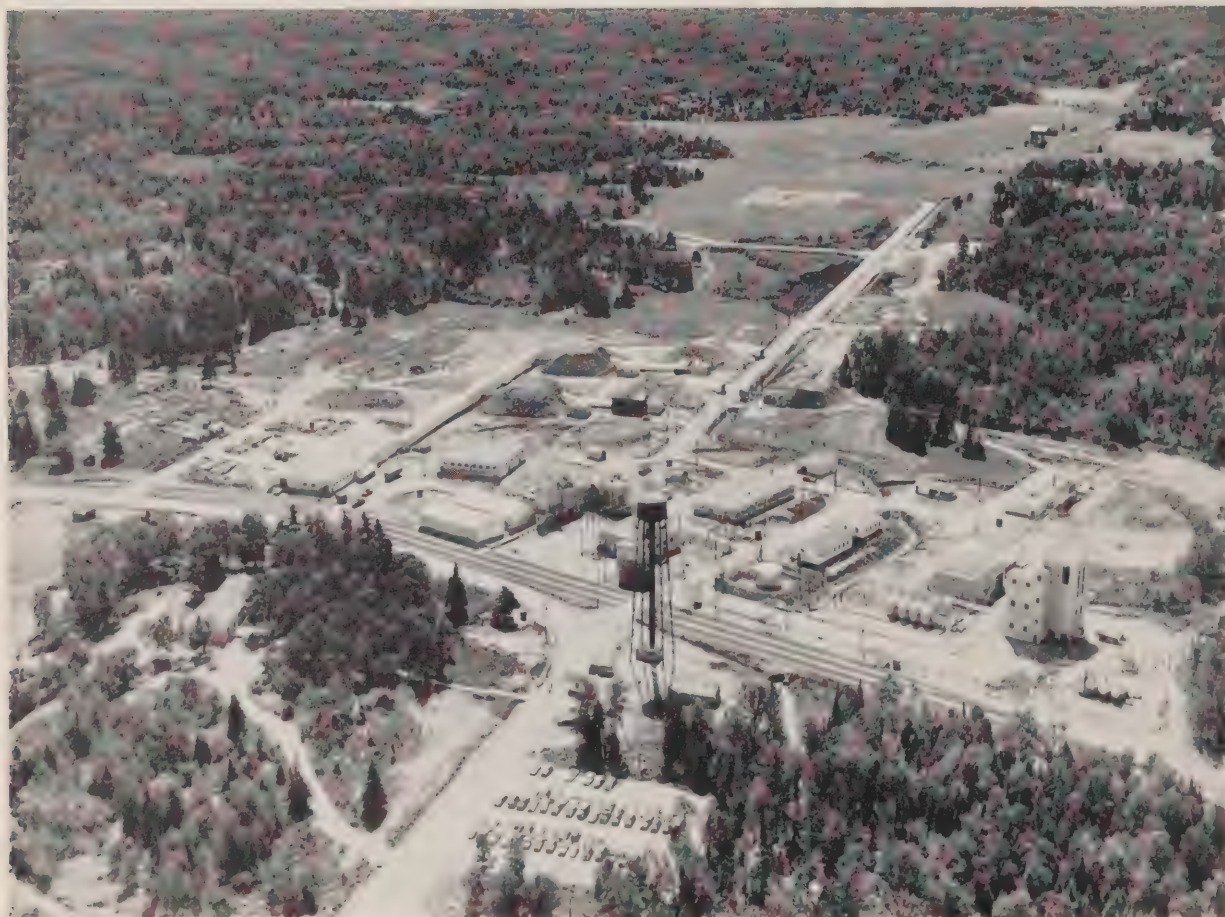
a large share of the raw materials, semi-manufactured products and finished goods exported, but has also supplied an increasing proportion of the capital equipment necessary for the expansion of the resource industries of Canada. Thus, the growth of export markets has given impetus to our overall industrial development.

The expansion of mineral production in Canada from \$503 million in 1946 to \$2,472 million in 1960 has had a dual effect on Ontario manufacturing. The demand for capital equipment manufactured in this Province has increased while the output of our mineral-using industries has risen rapidly. Primary iron and steel, non-ferrous metal smelting and refining and the petroleum products industries, which have been among the most dynamic in recent years, base their growth largely on developments in mineral production. Similarly, such industries as pulp and paper, agricultural implements, foods and beverages, and wood products are dependent to a great extent on developments in the natural resources of forest and farm.

Although abnormal conditions in the immediate post-war years created external markets for Canadian manufactured goods, secondary industry has been mainly dependent on the domestic market. New industries which were introduced during earlier periods of world-wide economic dislocation have since found it necessary to adjust to the demands of the more limited export market. However, the rapid increase in the domestic market since 1946 has allowed such a transformation to take place successfully.

From 1946 to 1959, Ontario's population increased by two million. During this period the birth rate in Ontario reached an unprecedented level. Over half of the immigrants who came to Canada since the War settled in this Province, thus adding to the plentiful labour supply. This growth in the domestic market has been a vital stimulus to industrial expansion and has, in turn, led to further population growth.

Combined with this increase in population, levels of personal income both on an aggregate and per capita basis



Courtesy—The Photographic Survey Corporation Limited, Toronto, Ontario.

Aerial view of the Nipissing Works of Du Pont of Canada's commercial explosives plant near North Bay.

have increased sharply. The resulting higher standards of living have expanded the domestic market even further and made it an increasingly important sector of total demand for manufactured goods.

The past decade and a half has also been marked by dynamic improvements in technology. Vast amounts of capital have been spent on automating production processes and otherwise improving the efficiency of manufacturing operations. A large part of this improvement in efficiency has been the result of the establishment of subsidiary firms in Canada which have been able to utilize the research facilities of parent companies in the United States and abroad. At the same time, our domestic research and engineering have progressed markedly.

Government policies, while assisting in the general growth of manufacturing, have been directly responsible for the stimulation of production in specific industries. The expenditure of billions of dollars by the Federal Government for defence purposes has been vital to the aircraft and parts industry and has been the chief support of many enterprises within our instruments and electronics industries. The building of highways and access roads and the huge expenditure on power development by the Provincial Government and Ontario Hydro have been essential to the growth of other manufacturing enterprises. Indirectly, through policies designed to assist agriculture, forestry and mining, the Government of Ontario has laid the foundation for further industrial growth. At the municipal level, basic services such as water, sewage, police and fire protection, and a host of other activities necessary for industrial expansion have been provided. The municipalities, together with the Provincial Government, have established planning and development boards and councils designed to facilitate continuous and orderly growth and attract new industries. The Ontario Government has greatly assisted the municipalities in the extension of local services.

The expansion of Ontario's manufacturing industries could not have been of such magnitude without the importation of vast quantities of foreign capital. In the post-war years almost 60 per cent of new private capital in Canadian manufacturing came from outside the country. Sufficient capital was not available in Canada to support such a wide-scale industrial expansion. The importation of the necessary investment funds from the United States and elsewhere was possible only because of the long run strength of the Canadian economy. Increased productivity which has been brought about by investment in more technologically advanced equipment and plant has in turn created new investment funds within Ontario's manufacturing industry of sufficient scale to finance further expansion.

The Current Situation in Ontario Manufacturing

All types of manufacturing in Canada are represented in Ontario and in half the leading industries of Canada,

Ontario contributes over half of Canadian production. In the Appendix there is a table listing the industries in which Ontario's contribution exceeded 50 per cent of Canada's factory shipment value in 1958. Ontario's leading industry, motor vehicles, accounted for 98.6 per cent of Canadian production while 100 per cent of the machine tools industry was located in this Province.

This table indicates that almost all of the industries in which Ontario contributes a major share of Canadian production are secondary, rather than primary industries. These secondary industries are characterized by a relatively high degree of processing and a dependence on our domestic market. The primary industries are those which are engaged in the direct conversion of our natural resources to consumer goods or industrial materials. Indeed, if one uses the breakdown employed by the Royal Commission on Canada's Economic Prospects, over three-quarters of the selling value of factory shipments in Ontario is made up by our secondary industries.

On the whole, the primary industries of Canada are those in which Canada has a natural competitive advantage due to the fact that the natural resources required for these industries are located in large quantities in this country. Primary industries such as pulp and paper and non-ferrous metal smelting and refining direct most of their sales to export markets. Another characteristic of these industries is that in general they do not employ a large amount of labour in relation to value of production. Most of Ontario's primary industries, since they produce goods at competitive prices which are in demand throughout the world, have been making steady progress in the post-war years.

In the field of secondary manufacturing, however, a number of problems have been making themselves felt in the past three years. Since these industries produce almost entirely for the domestic market, their production runs are of necessity limited and competition from imports can seriously affect their sales. During the great expansion period from 1946 to 1957 they faced little competition from the industrial countries of Europe and Asia which were devoting their resources to post-war reconstruction.

In these years, as was the case in the earlier part of the century, Canadian secondary industry gradually adjusted itself to American production and competition. In some cases, American innovation, advertising and promotion helped to cultivate the market in Canada. As sales increased, facilities were established in Canada for production in the home market, with the United States serving as a source for those items, the manufacture of which would not be justified by the small size of the Canadian market. Thus, integrated operations came into existence, which facilitated the expansion of secondary manufacturing in Canada and at the same time brought benefits in the form of greater variety and lower prices to consumers.

Since 1957, European and Japanese imports of secondary manufactured goods into Canada have become

increasingly important. The European and Japanese industries which were rebuilt after the War largely by American aid, but independent of American policy and control, now have the advantages of both modern plants and lower wage rates. The governments of these countries have also aided considerably in strengthening the competitive position of their manufacturing industries by providing subsidies, tax incentives, and export credit arrangements. In addition, countries such as West Germany, are aided by undervalued currencies which cut the real price of their exports in foreign markets.

The emergence of the two trading blocs in Western Europe, the European Economic Community and the European Free Trade Area, has provided a further stimulus to the rationalization and increased efficiency of manufacturing operations in that area. In other parts of the world steps have also been taken to combine the industrial potential of several countries. In South and Central America, for instance, common markets have been established with a view to encouraging the development of new industries.

The enormous quantity of foreign capital which has been invested in this country, while providing benefits to our economy, has also brought problems. So great has been this net inflow that the Canadian dollar has been maintained at a premium in terms of the United States dollar and therefore, in effect, at an increased value in terms of the currencies of other countries. The effect of this premium has been to encourage and facilitate imports and to deter exports from Canada. For a number of marginal industries, this premium has had the effect of making continued operation unprofitable. In other industries, especially those competing in export markets, the decline in profits has had the effect of cutting down on expansion and research programs.

The other problem created by foreign capital investment here has been the increasing control by foreigners over our own industrial operations. In some instances, the subsidiaries which have been established in Canada by investment from a parent company in the United States or elsewhere, have not been given the measure of autonomy which would allow them to operate with the greatest efficiency and profit to themselves and to the Canadian economy. Sometimes the subsidiary is not permitted by its parent to compete in world markets. Often, research and design are undertaken only by the parent company with the result that the products manufactured here may not be adequately suited to our domestic conditions.

Another factor that lies at the root of our present dilemma has been the relatively rapid increase in labour and material costs in Canada. The post-war pre-occupation of Europe and Japan with their own reconstruction removed the restraint on our wage structure that would normally have been felt. The prosperity generated by our

expansion has been conducive to the provision of wage increases in Canadian manufacturing which have been greater since 1950 than those in the United States. Despite recent increases in wage rates in Europe and Asia, our wage levels continue to be far in excess of those prevailing in industrial countries other than the United States. Certainly the problem of rising costs is one which will have to be met more effectively if our manufacturing industries are to maintain their competitive position.

In spite of these problems there is every reason to expect a resurgence of manufacturing activity in Ontario. We are well situated to take advantage of rapidly growing markets both at home and abroad. Ontario has immense resources, low cost energy and power, modern factories, unexcelled transportation facilities, and the skills and enterprise of an industrious people. There will have to be some adjustments made by our industries in order to compete more effectively under the changing conditions of the 1960's. There is room also for some measures to be taken by the Canadian Government to assist in the further development of our manufacturing industries. Arrangements should also be made between the United States and Canada for more effective co-operation in the industrial field. In the final analysis we will only progress industrially by matching our skills, our imagination, our perseverance, our sacrifice, and our good sense with those of the people of other lands.

Industrial Groups

Of the 18 industrial groups into which Ontario establishments are classified, iron and steel products, with a selling value of factory shipments of \$2.1 billion in 1959, is the most important. Second in that year was the foods and beverages group with \$2.0 billion, and third, transportation equipment—\$1.4 billion. These were the only three groups with a selling value of over one billion dollars, and they accounted for 47 per cent of the total selling value of the factory shipments for all manufacturing in the Province. Following these leading groups were: non-ferrous metal products (\$0.9 billion), chemicals and allied products (\$0.8 billion), paper products (almost \$0.8 billion), electrical apparatus and supplies (\$0.7 billion) and products of petroleum and coal (\$0.5 billion). Each of the remaining groups contributed less than half a billion dollars.

Prior to 1952, Ontario's leading industrial group was foods and beverages. It lost this lead during most of the 1950's due to the enormous expansion in the durable goods industries, regaining it only in the recession years of 1954 and 1958. In 1953 and 1955 transportation equipment became the most important group, while in 1956, 1957 and 1959 iron and steel products took over the lead.



Courtesy—The Steel Company of Canada Limited.

A huge ladle of molten steel is being poured into ingot moulds in this picture taken at Stelco's Open Hearth division. Steelmen call this operation "teeming". Once the steel is solidified in the moulds, they are removed and the solid ingot of steel proceeds to the primary rolling operations.

SELLING VALUE OF FACTORY SHIPMENTS IN MANUFACTURING,
BY INDUSTRIAL GROUPS, IN ONTARIO, 1958 AND 1959

	1958	1959 ¹
	(Thousands of Dollars)	
Foods and Beverages.....	1,854,772	1,979,000
Tobacco and Tobacco Products.....	129,380	140,000
Rubber Products.....	253,309	285,000
Leather Products.....	121,340	136,000
Textiles.....	300,320	319,000
Knitting Mills.....	74,283	75,000
Clothing (Textile and Fur).....	196,458	202,000
Wood Products.....	335,917	396,000
Paper Products.....	715,801	776,000
Printing, Publishing and Allied Industries.....	401,076	427,000
Iron and Steel Products.....	1,802,729	2,132,000
Transportation Equipment.....	1,504,740	1,408,000
Non-Ferrous Metal Products.....	683,424	929,000
Electrical Apparatus and Supplies.....	708,050	706,000
Non-Metallic Mineral Products.....	327,348	339,000
Products of Petroleum and Coal.....	457,314	511,000
Chemicals and Allied Products.....	750,577	804,000
Miscellaneous Manufacturing Industries.....	247,192	270,000
Total ²	10,864,028	11,831,000

¹Estimated by the Ontario Department of Economics.

²Figures may not add due to rounding.

Since 1949 the growth in value of production in the leading industrial groups has been tremendous. The selling value of factory shipments of iron and steel products increased by almost 115 per cent in this period, while foods and beverages and transportation equipment almost doubled. Non-ferrous metal products rose by over 125 per cent and chemicals and allied products were almost two and a half times their 1949 value.

In 1958, the last year for which detailed statistics are available, the foods and beverages group, with 3,129, contained the largest number of establishments, followed by wood products (2,157), printing, publishing and allied industries (1,829) and iron and steel products (1,644).

The iron and steel products group has by far the largest number of employees with 113,000 in 1958. Next were foods and beverages with 78,000, transportation equipment, 73,000, and electrical apparatus and supplies with 50,000.

It is interesting to note that in 1958 and 1959, for the first time since 1948, the six groups in the durable goods sector—iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, wood products and non-metallic mineral products—failed to account for half of the total Provincial selling value of factory shipments. A number of these industries, which went through a capital expansion boom in the early and middle 1950's, are now experiencing problems of over-capacity as the pace of our economic development has slackened somewhat. On the other hand, most of the industries producing non-durable goods, except for a few which have had long-term problems in meeting the changed conditions of the post-war era, have kept pace more closely with the overall rate of our economic growth, expanding less rapidly in boom periods and not suffering as heavily in periods of recession.

Leading Industries

Ontario's manufacturing industries regained momentum during 1959, as the selling value of factory shipments rose to an estimated \$11.83 billion, an increase of nine per cent over 1958 and of almost seven per cent above the former record established in 1957. In 1958, strikes in several key industries, a decline in export demand, a reduction in capital expenditures for new machinery and equipment, and a general working down of inventories—all combined to bring about a lower level of manufacturing production. In 1959 these trends were reversed, and production of both durable and non-durable goods increased. The one disheartening fact about this increase, however, was that while the selling value of factory shipments rose by one billion dollars between 1958 and 1959, employment in Ontario's manufacturing industries increased by only 8,000—to a level which was 30,000 short of the peak year of 1957. This rise in factory shipments without a corresponding increase in manufacturing employment reflects the increased use of automation and the resulting increase in operating efficiency in our leading manufacturing industries. In fact, those industries which have expanded the most in the post-war period have been the first to take advantage of the availability of labour saving devices and new techniques. Some of the industries which have suffered most seriously from foreign competition in recent years have been those generally labour-intensive industries which have been slow to adapt themselves to changing conditions.

SELLING VALUE OF FACTORY SHIPMENTS OF THE TEN LEADING
MANUFACTURING INDUSTRIES IN ONTARIO, 1958 AND 1959

	(Ranked According to 1959 Selling Value)	
	1958	1959 ¹
	(Thousands of Dollars)	
Motor Vehicles.....	835,537	904,000
Primary Iron and Steel.....	456,943	660,000
Non-Ferrous Metal Smelting and Refining.....	426,897	591,000
Pulp and Paper.....	447,109	460,000
Slaughtering and Meat Packing.....	395,608	447,000
Petroleum Products.....	393,462	434,000
Motor Vehicle Parts.....	279,563	291,000
Rubber Goods, Including Footwear.....	253,309	280,000
Machinery, Industrial.....	196,884	215,000
Fruit and Vegetable Preparations.....	188,243	212,000

¹Estimated by the Ontario Department of Economics.

The 20 leading manufacturing industries, while having only one-quarter of the establishments and 45 per cent of the employees, accounted for over half of the selling value of factory shipments in Ontario in 1959. The leading industry, the production of motor vehicles, while eight per cent higher than in 1958, was still below the levels of output established earlier in the decade, as sales of imported vehicles captured one-third of the domestic market. The importance of this industry to the economy of Ontario cannot be over-emphasized, by reason not only of the size of its employment, investment, payroll, production and tax payments, but also of its many-sided influences on other industries in the Province.

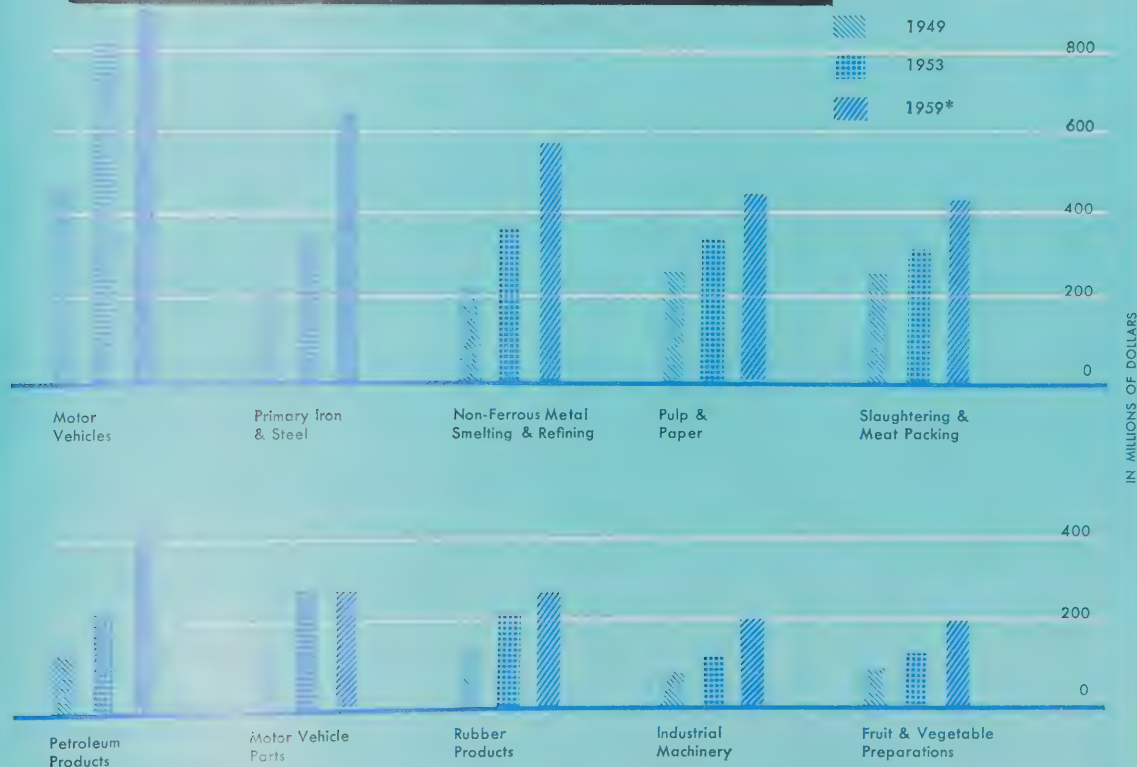
The motor vehicle industry in the last few years has been consistently first among Ontario industries in terms of employment, salaries and wages, net value of production, and selling value of factory shipments. It has lost this first position in terms of production in only nine years since 1924. In its peak year, 1956, almost 35,000 workers were employed in its nine establishments, whose products had a selling value of almost \$1 billion, over nine per cent of the total value of all manufacturing shipments in Ontario. The industry has, however, accounted for a smaller proportion of total manufacturing in the past three years.

If all the manufacturing operations producing parts for motor vehicles were lumped into one industry, it is likely that such a parts industry would rank second among Ontario manufacturing industries in terms of value of factory shipments, and first in terms of employment. As it is, the industry classified by the Dominion Bureau of

Statistics as "the automobile parts industry" accounts for only those establishments producing finished metal parts. It has been estimated that the D.B.S. figures should be increased by at least 50 per cent to include other manufacturers producing metal parts. In addition, most of the rubber goods industry in Ontario is devoted to the production of tires and tubes for motor vehicles, while parts of the textile, glass and plastic industries manufacture other components. Indeed, there is hardly a major industry in Ontario which does not contribute some parts or raw materials used in the manufacture of motor vehicles. It would probably be safe to estimate that one out of every seven or eight employees in Ontario manufacturing establishments is engaged in the production of motor vehicles or parts.

Since almost the whole of the Canadian automotive industry is located in Ontario, this Province is especially concerned that solutions are found to the problems which

**SELLING VALUE OF FACTORY SHIPMENTS IN THE TEN LEADING MANUFACTURING INDUSTRIES OF ONTARIO, 1949, 1953, 1959*
(RANKED ACCORDING TO 1959 SELLING VALUE)**



*Estimated by the Ontario Department of Economics.

it is now facing from foreign imports. In 1959 over 98 per cent of the value of Canadian motor vehicle shipments was produced in Ontario, and over 90 per cent of the value of motor vehicle parts. Employment proportions were similar. It is to be hoped that a way will be found for an increasing proportion of motor vehicle parts to be produced in this country, and that some of the foreign manufacturers who are now exporting large numbers of automobiles to Canada can be induced to produce motor vehicles here. In addition, the production in Canada by our existing manufacturers of automobiles which are lower in price, and therefore closer to the market needs of the Canadian people, would permit them to recapture a much larger percentage of the domestic market.

The second most important industry in 1959 was another durable goods industry—primary iron and steel—with a selling value of factory shipments of approximately

\$660 million. This figure represents a production record for the industry and a rise of over \$200 million from its 1958 total. This tremendous increase, which was accounted for partly by the steel strike in the United States, is a reflection of improved technology and operating efficiency in the industry. During 1960, while the primary iron and steel industry in the United States was operating at just over half of rated capacity, the industry in Ontario averaged over 80 per cent.

In third position in 1959 was our non-ferrous metal smelting and refining industry which also showed a remarkable recovery from the 1958 recession. Much of this increase was accounted for by large increases in export sales of nickel. Not only is this industry a leading exporter, but it also provides essential materials for other manufacturing industries in Ontario.



Courtesy—General Motors of Canada Limited.

The General Motors of Canada Passenger Car Assembly Plant at Oshawa—largest of its kind in Canada—contains 75 acres of floor area. Here are built Chevrolet, Corvair, Pontiac, Oldsmobile and Buick passenger cars. A second plant, not shown, covers 60 acres and contains facilities for assembling trucks and manufacturing automotive components.

Pulp and paper, the fourth industry in 1959, has been making steady progress since the end of the Second World War. Newsprint mills, which are its chief component, have been expanding their capacity and modernizing equipment. In this way they have been able to increase their sales to the United States which account for over three-quarters of their production. The fine paper and paperboard mills, which produce almost entirely for the domestic market, have also been increasing production steadily.

Slaughtering and meat packing is one of five industries in the foods and beverages group which can be counted among Ontario's leading industries. Among the other industries in this group, fruit and vegetable preparations was in tenth place in 1959, butter and cheese was in twelfth place, while bread and other bakery products and miscellaneous food preparations also ranked in the first twenty-five. Nineteen fifty-nine was the most prosperous year in history for the slaughtering and meat packing industry when its selling value of factory shipments reached

\$447 million. This industry has grown steadily in the last 15 years, and increased its production by \$50 million in 1958, a year in which most other industries showed declines.

The petroleum products industry has shown the fastest rate of growth of all leading industries in the post-war period. The discovery of abundant reserves of oil in Western Canada in the post-war years, the completion of the Interprovincial pipeline to bring this oil to Ontario refineries, the substitution of oil for other forms of heating, the increasing uses of petroleum products as a fuel for our trains, ships, airplanes and motor vehicles, and the general rise in our population and disposable income are the major factors behind the growth of this industry. The striking characteristic of this growth is that it has been accompanied by an actual reduction in the number of its production employees. Since it is the second largest non-durables industry in Ontario, this characteristic has had an important impact on aggregate manufacturing statistics.



Courtesy—Imperial Oil Limited.

Aerial view of Imperial Oil Limited's Sarnia refinery on the bank of the St. Clair River.

As has been mentioned previously, the industries in seventh and eighth places, motor vehicle parts and rubber goods, are directly affected by the fortunes of the motor vehicle industry itself. The rubber goods industry, however, has been able to avoid some of the consequences of this dependence by diversifying production to include a large number of new products which have been developed through the advancement of technology and science. Nevertheless, this industry has been adversely affected by an increasing number of imports of durable goods in recent years.

A number of the remaining leading industries are related industries producing capital goods such as industrial machinery, heavy electrical machinery, telecommunications and iron castings. These industries have had varying fortunes during the 1950's. All of them have increased production over the past 10 years but they have all been affected by fluctuations in the business cycle and by increasing imports from the United States, Western Europe and Japan. It is apparent that some rationalization and increased efficiency of operation will have to take place in these industries if their growth is to be resumed.

Construction, Housing and Living Conveniences

The construction industry has occupied an increasing share of the net value of commodity production in Ontario over the past decade. Whereas in 1951 construction made up 13.0 per cent of the Province's total net value of production, in recent years its share has ranged from 16 to 18 per cent. The industry reflects the demands of many groups of customers which can be broadly categorized into three sectors—residential, industrial and commercial, and government. Residential construction which is the dominant sector in the industry accounted for about 34 per cent of the total value of construction work performed in Ontario in 1959. Fluctuations in residential construction, therefore, have important implications for the industry as a whole.

General Review

The upsurge in Ontario's construction industry which reached an all-time peak in 1958, settled back for a slight breathing spell in 1959. This can in part be attributed to the partial withdrawal of the Federal Government's support in the field of residential mortgages and to the increases in interest rates. Only some of the components, notably residential and engineering, were affected; others—commercial and institutional—registered increases in 1959. It is expected that data for 1960 will show that the industry recorded gains in some sectors although, it is evident that the residential sector experienced a substantial decline.

Construction work with the value of \$2.4 billion was undertaken in Ontario in 1959. This figure represented a slight decrease from the 1958 figure, but, it was the third highest on record in the post-war period. The cost of materials used, the number of employees and payroll expenditures all adhered to the general trend in the con-

struction industry—that of a slight decline in 1959 with forecasts for increases in 1960. All three, however, continued to exhibit increases which have been characteristic of the post-war period. In 1959, expenditures on materials and payrolls were about six times their 1946 level, while in the same period the number of employees was more than two and one-half times.



Courtesy—Govan, Ferguson, Lindsay, Kaminker, Langley, Keenleyside—Architects.

The new Ontario Hospital Services Commission building, Toronto.

Building construction continues to dominate the industry in the Province. In 1959, this type of construction was responsible for over three-fifths of the total value of construction work performed. Residential building accounted

for more than one-half the total value of building construction. Commercial, institutional and industrial were next in order of importance. Engineering construction made up the remainder of the total value of construction work done in Ontario. Road, highway and aerodrome, electric and railway, telephone and telegraph were the three most important components of engineering construction in 1959.

The value of construction contracts awarded also reflected the general trend in the industry. While the aggregate remained well over the billion dollar mark, in 1959 there was a 15 per cent decrease. By 1960, however, there was a five per cent increase over the 1959 total. The number of factory plans approved in Ontario increased by more than four per cent since 1959 while their value registered an increase of two per cent.

Ontario's occupied dwellings continued to increase in number and exceeded 1.6 million in 1960. The one-family detached type predominated and the six-room home was the most common. About 73 per cent of the Province's homes were owner-occupied in 1960, compared with approximately two-thirds in 1951.

Judging by the proportion of homes with certain household facilities and living conveniences, Ontario has a higher standard of living than the country as a whole. Most of the Province's homes have hot and cold water piped inside and the exclusive use of an installed bathtub or shower. Mechanical refrigerators are available in all but four per cent of occupied dwellings, and an increasing number also contain a home freezer. Electricity, generally obtained from a power-line source, is used for cooking in the majority of households. Oil is the principal heating fuel, but an increasing number are using gas.

Most common among the other standard living conveniences found in Ontario's homes is the radio. It is followed by the telephone, television, the powered washing machine, the vacuum cleaner, the passenger automobile and the electric sewing machine. Many households have more than one of these specified conveniences. This is especially true in the case of the radio and the automobile.

Construction Work in Canada and Ontario

Construction work valued at an estimated \$2.4 billion was undertaken in Ontario in 1959. This represented a slight decrease of \$0.2 billion from the 1958 figure. The Province, however, persisted in its role of leader in the field of construction and accounted for slightly more than one-third of the Canadian total. There are indications that the value of construction work performed in the Province recovered somewhat from the fall-off in 1959 but was less than the record set in 1958.

VALUE OF CONSTRUCTION WORK PERFORMED IN CANADA AND ONTARIO, SELECTED YEARS 1939 TO 1960

	Canada ¹ (\$000's)	Ontario (\$000's)	Ontario as % of Canada
1939	373,204	144,830	38.8
1946	868,661	347,617	40.0
1951	3,661,152	1,349,497	36.9
1956	6,453,600 ²	2,189,600 ²	33.9
1957	7,023,058	2,507,011	35.7
1958	7,092,481	2,598,625	36.6
1959 ³	7,128,585	2,422,492	34.0
1960 ⁴	7,317,240	2,545,872	34.8

¹See Statistical Appendix for breakdown by provinces.

²Revised.

³Preliminary.

⁴Intentions.

Employees, Payrolls and Material Costs

The number of employees and the expenditure on payrolls and materials have followed a trend somewhat similar to that of the value of construction work performed in Ontario. All three categories were at their highest in 1958, underwent slight decreases in 1959 and had forecasts for increases in 1960. There were some 197,000 employees in the industry in 1959—almost one and one-quarter times the 1951 level. Payrolls and material costs exhibited even larger increases over their 1951 totals. Payrolls, which stood at about \$845 million in 1959, were well over one and three-quarter times their 1951 figure, while the cost of materials has risen to over one and one-half times in the same period. An estimated 207,000 persons earning approximately \$887 million in wages and salaries were employed in Ontario's construction industry in 1960. Material costs are expected to be just under \$1.2 billion.

EMPLOYEES, PAYROLLS, AND MATERIAL COSTS IN ONTARIO'S CONSTRUCTION INDUSTRY, SELECTED YEARS 1939 TO 1960

	Employees No.	Payroll (\$000's)	Material Costs (\$000's)
1939	52,338	56,917	76,294
1946	76,870	138,564	184,351
1951	158,552	446,164	700,794
1956	197,092	738,484	1,072,506
1957	207,945	847,896	1,197,947
1958	214,006	896,629	1,203,999
1959 ¹	197,545	844,496	1,133,906
1960 ²	207,203	887,115	1,197,950

¹Preliminary.

²Intentions.

New and Repair Construction

Over the past two decades, there has been a substantial increase in the value of both new and repair construction work performed in Ontario; however, the increment in new construction has been much greater than that in repair construction. New construction accounted for about 81 per cent of the total construction work in 1959, compared with 76 per cent in 1951 and 64 in 1946. In 1959, new construction was valued at \$2.0 billion. This was somewhat less than in 1958 but, it was the third highest on record in the post-war period, almost twice the 1951 figure and nearly nine times that in 1946. Unlike new construction, the value of repair construction continued to increase in absolute value in 1959.

VALUE OF NEW AND REPAIR CONSTRUCTION PERFORMED IN ONTARIO, SELECTED YEARS 1939 TO 1960

	Total	New		Repair	
	(\$000's)	(\$000's)	%	(\$000's)	%
1939	144,830	98,244	67.8	46,586	32.2
1946	347,617	220,712	63.5	126,905	36.5
1951	1,349,407	1,022,625	75.8	326,782	24.2
1956	2,162,684	1,788,611	82.7	374,073	17.3
1957	2,507,011	2,066,289	82.4	440,722	17.6
1958	2,598,625	2,144,626	82.5	453,999	17.5
1959	2,422,492	1,954,547	80.7	467,945	19.3
1960 ¹	2,545,872	2,062,651	81.0	483,221	19.0

¹Preliminary.

²Intentions.

Types of Construction Work

In 1959, building construction was valued at approximately \$1.6 billion and accounted for 65 per cent of total construction performed in Ontario. In recent years, this type of construction has represented as much as two-thirds of the aggregate. Engineering construction, valued at about \$0.8 billion, made up the remaining 35 per cent.

More than one-half of the building construction undertaken in 1959 was for residential purposes. Residential construction was valued at \$815 million, while the other major components of building construction, namely commercial, institutional and industrial, were valued at \$309 million, \$208 million and \$172 million, respectively. Residential building decreased by seven per cent from 1958 to 1959 while industrial building decreased by less than one per cent. In the same period, commercial building recorded the highest increase—eight and one-half per cent—while institutional was second with eight per cent.

VALUE OF CONSTRUCTION WORK PERFORMED IN ONTARIO BY PRINCIPAL TYPES, 1951 AND 1957 TO 1959

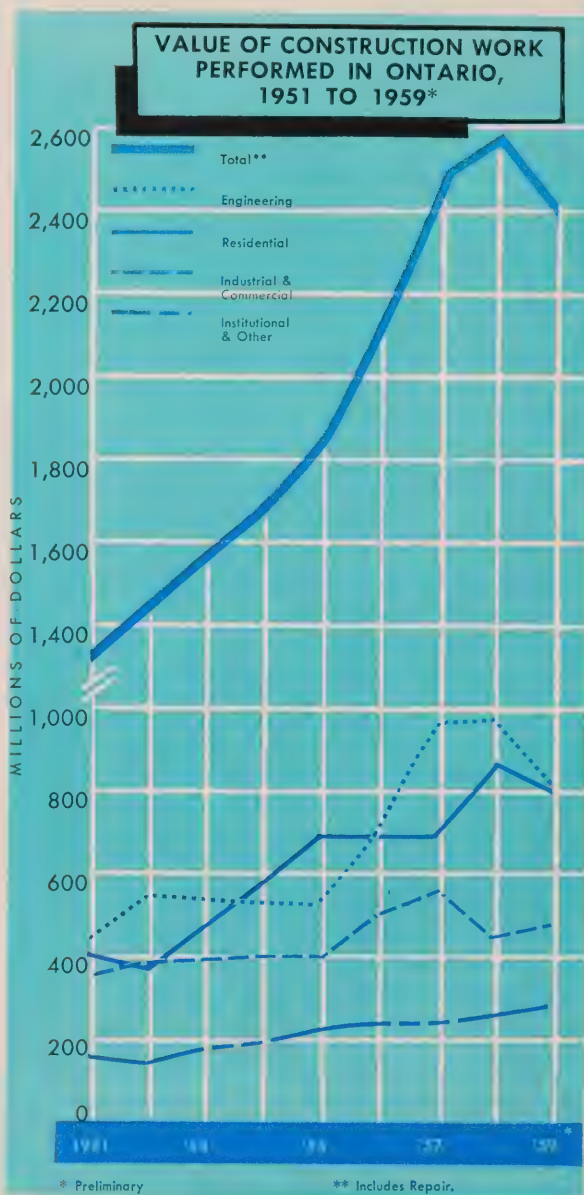
	1951	1957	1958	1959	% Change	
	(\$000's)	(\$000's)	(\$000's)	(\$000's)	1959/1951	1959/1958
Building	913,512	1,531,963	1,607,649	1,585,295	73.5	-1.4
Residential	408,900	708,000	879,700	814,800	99.3	-7.4
Commercial	146,753	276,126	285,082	309,291	110.8	8.5
Institutional	91,079	159,499	192,162	207,737	128.1	8.1
Industrial	196,564	300,092	173,116	172,037	-12.5	-0.6
Other	70,216	88,246	77,589	81,430	16.0	5.0
Engineering	435,895	975,048	990,976	837,197	92.1	-15.5
Gas, Oil	9,338	208,396	254,872	81,292	770.6	-68.1
Road, highway, aerodrome	109,779	203,400	216,104	235,427	114.5	8.9
Electric Power	150,302	197,600	155,613	169,501	12.8	8.9
Railway, telephone, telegraph	76,348	131,921	138,007	138,998	82.1	0.7
Waterworks, sewage	28,348	82,474	76,046	85,527	201.7	12.5
Marine	8,329	43,898	62,699	34,911	319.1	-44.3
Dams, irrigation	3,174	5,853	6,419	5,007	57.8	-22.0
Other	50,277	101,506	81,216	86,534	72.1	6.5
GRAND TOTAL	1,349,407	2,507,011	2,598,625	2,422,492	79.5	-6.8

Note: A further breakdown of the categories in the above table is to be found in the Statistical Appendix.

During the period 1951 to 1959, the value of institutional construction increased by well over two and one-quarter times—the greatest increase of any of the components of building construction. In the same period, the value of commercial building was more than doubled while that of residential building increased in almost the same proportion. Building construction forecasts indicate

an increase in aggregate value as well as in most of the components although residential construction is expected to decline.

Decreases in gas and oil construction, marine construction and dams and irrigation—in that order—were mainly responsible for the 15 per cent decline in the value of engineering construction in 1959. The largest increases in the components of engineering construction occurred in waterworks and sewage (13 per cent), electric power (nine per cent) and road, highway and aerodrome (nine per cent).



Contract Awards

After a 15 per cent decrease in 1959, construction contracts awarded rose to \$1.3 billion in 1960, five per cent more than in the previous year. However, they have not returned to the peak level of \$1.5 billion achieved in 1958.

VALUE OF CONSTRUCTION CONTRACTS AWARDED IN ONTARIO, 1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
						1960/1951	1960/1959
Total	(\$000's)	1,017,427	1,489,594	1,262,306	1,325,881	30.3	5.0
	%	(100.0)	(100.0)	(100.0)	(100.0)		
Residential	(\$000's)	215,933	675,763	504,843	374,906	73.6	-25.7
	%	(21.2)	(45.4)	(40.0)	(28.3)		
Business	(\$000's)	206,462	429,420	418,894	428,684	107.6	2.3
	%	(20.3)	(28.8)	(33.2)	(32.3)		
Engineering	(\$000's)	361,561	299,904	243,035	425,961	17.8	75.3
	%	(35.5)	(20.1)	(19.2)	(32.1)		
Industrial	(\$000's)	233,472	84,507	95,534	96,332	-58.7	0.8
	%	(23.0)	(5.7)	(7.6)	(7.3)		

Source: Hugh C. MacLean Publications Ltd., *MacLean's Building Guide*.

Residences, the major contributor of the residential sector, accounted for 66 per cent of the aggregate value of the sector while apartments comprised the remainder. The value of residential contracts has shown a steady decline since 1958. This has been due largely to the smaller contributions of residences which have decreased by 52 per cent since 1958.

In 1960, the engineering sector, which had accounted for 19 per cent of total contracts awarded in 1959, increased by 75 per cent and became the second largest contributor. The largest values in this sector were to be found in power and communications (52 per cent) followed by roads and streets (17 per cent).

Business contracts—the largest component—accounted for 32.3 per cent of total contracts awarded and experienced a slight increase of approximately two per cent in 1960. The largest item was that of school contracts which

has been rising steadily in the post-war period and made up 24 per cent of total business contracts in 1960. Contracts for stores and public buildings were next in importance with 18 and 15 per cent, respectively.

During the past ten years, significant changes have occurred in the size of each sector's contribution to the total value of construction contracts awarded. Business contracts, the smallest component of contract awards in 1951, has steadily increased its share to become the largest in 1960. Residential contracts which was the major contributor between 1952 and 1959 fell from 40 per cent in 1959 to 28 per cent in 1960. Industrial contracts has shown a fairly steady decline in its share since 1951, recording its lowest trough in 1958, with unsteady upturns in 1959 and 1960.

Building Permits Issued

In 1960, the value of building permits issued continued the downward trend begun in 1959 by experiencing a fall of 11 per cent. Residential permits which declined by

VALUE OF BUILDING PERMITS ISSUED IN ONTARIO, 1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
						1960/1951	1960/1959
Total	(\$000's)	443,892	1,097,716	1,020,771	905,819	104.1	-11.3
	%	(100.0)	(100.0)	(100.0)	(100.0)		
Residential	(\$000's)	225,560	649,035	552,096	438,531	94.4	-20.6
	%	(50.8)	(59.1)	(54.1)	(48.4)		
Institutional and Government	(\$000's)	61,468	203,332	185,639	186,859	204.0	0.7
	%	(13.8)	(18.5)	(18.2)	(20.6)		
Commercial	(\$000's)	72,772	153,216	186,918	170,545	134.4	-8.8
	%	(16.4)	(14.0)	(18.3)	(18.8)		
Industrial	(\$000's)	81,545	90,143	93,926	107,442	31.8	14.4
	%	(18.4)	(8.2)	(9.2)	(11.9)		
Other	(\$000's)	2,547	1,990	2,192	2,442	-4.1	11.4
	%	(0.6)	(0.2)	(0.2)	(0.3)		

¹A breakdown of Building Permits by Economic Regions is to be found in Part III, Economic Regions of Ontario.



Courtesy—Ontario Division, Canadian Manufacturers' Association.

One of Ontario's many new medium-sized factories in final stages of construction.

approximately 21 per cent was largely responsible for this fall-off. The other component which contributed to this decline was commercial permits with a decrease of nine per cent. The increases of 14 per cent and 0.7 per cent recorded by industrial and institutional permits were insufficient to overbalance the declines in residential and commercial permits.

Factory Plans Approved

The 2,661 plans for factories, shops and office buildings approved by the Factory Inspection Branch of the Ontario Department of Labour in 1960 represented an all-time record in the Province. There was a four per cent increase between 1959 and 1960. The value of these plans amounted to \$187 million—two per cent more than in 1959—but they were 12.8 per cent less than the highest value reached in 1958.

FACTORY PLANS APPROVED IN ONTARIO, 1951 AND 1958 TO 1960

	1951	1958	1959	1960	% Change	
Number of Plans	1,400	2,128	2,557	2,661	90.1	4.1
Value of Projects (\$000's)	103,193	214,393	184,195	187,494	81.7	2.1

Dwelling Units Started and Completed

Of the new dwelling units completed in Canada in 1960, some 37.3 per cent or approximately 47,000 were in Ontario. The Province was responsible for 38.8 per cent of the number of dwelling units started in Canada in 1960.

Dwelling units started and completed declined further from the peak of 1958. This leaves little doubt that the residential sector will undergo a decrease in 1960. Dwelling units started decreased by 22 per cent while dwelling units completed decreased by 13 per cent in 1960. Three-quarters of all dwelling units in the Province occurred in urban centres of 5,000 and over.

DWELLING UNITS STARTED, COMPLETED AND UNDER CONSTRUCTION IN ONTARIO, 1951 AND 1958 TO 1960

	Dwelling Units Started	Dwelling Units Completed	Dwelling Units Under Construction, December 31
1951.....	27,349	31,732	19,258
1958.....	63,753	59,551	33,414
1959.....	54,158	54,281	32,827
1960.....	42,282	46,982	28,335

Note: An urban-rural breakdown for Canada and Ontario is to be found in the Statistical Appendix, while details of starts and completions in major urban communities are in Part III, Economic Regions of Ontario.

Characteristics of Occupied Dwellings¹

Number of Occupied Dwellings: The 1,571,000 occupied dwellings in Ontario in 1960 represented 35.7 per cent of all homes in Canada. Between 1951 and 1960, the number of occupied dwellings in the Province increased by 390,000, a rise of 33 per cent, while in the period 1959

to 1960 the number rose by 43,000 or almost three per cent.

NUMBER OF OCCUPIED DWELLINGS IN CANADA AND ONTARIO, 1951 AND 1958 TO 1960

	1951	1958	1959	1960	% Change		
Canada.....(000's)	3,409	4,173	4,303	4,404	1960/1951	1960/1958	1960/1959
Ontario.....(000's)	1,181	1,479	1,528	1,571	29.2	2.3	
Ontario as % of Total....	%	34.6	35.4	35.5	33.0	2.8	

Type of Occupied Dwellings: In 1960, some 71 per cent of all occupied dwellings were single detached, compared with 70 per cent in 1951. In the same period, the proportion of single attached homes fell from 11 per cent to nine per cent. After a slight fall in 1958, the number of apartments and flats climbed to 313,000 in 1960, continuing the upward trend which began in 1951.

TYPE OF OCCUPIED DWELLINGS IN ONTARIO, 1951 AND 1958 TO 1960

	1951	1958	1959	1960	% Change	
Total*	(000's) 1,181 (100.0)	1,479 (100.0)	1,528 (100.0)	1,571 (100.0)	1960/1951	1960/1958
Single Detached	(000's) 824 (69.8)	1,079 (73.0)	1,109 (72.6)	1,115 (71.0)	35.3	0.5
Single Attached	(000's) 134 (11.3)	131 (8.9)	130 (8.5)	143 (9.1)	6.7	10.0
Apartments and Flats	(000's) 219 (18.5)	269 (18.2)	289 (18.9)	313 (19.9)	42.9	8.3

*Includes Other.

Number of Rooms and Persons per Occupied Dwelling: The six-room home is the most popular in Ontario, and accounted for 29 per cent of all occupied dwellings in 1960, compared with 25 per cent in 1951. It was followed by the five-room home, which represented 24 per cent as against 19 per cent in 1951. This contrasts with Canada as a whole, where the five-room home predominated in 1960, with the six-room home in second place. A further 25 per cent of the Province's households had four rooms or less in 1960. This was a slightly lower proportion than the 27 per cent recorded in 1951 and considerably below the 32 per cent for Canada. The remaining 23 per cent had seven rooms or more, against 22 per cent in the nation as a whole. In 1951, 28 per cent of Ontario's homes had seven rooms or more.

NUMBER OF ROOMS AND PERSONS IN OCCUPIED DWELLINGS IN ONTARIO, 1960

	Number of Households with Specified Number of Rooms		Number of Households with Specified Number of Persons	
	(000's)	%	(000's)	%
1.....	9	0.6	106	6.7
2.....	26	1.7	370	23.6
3.....	119	7.6	293	18.7
4.....	236	15.0	328	20.9
5.....	369	23.5	213	13.6
6.....	451	28.7	118	7.5
7.....	174	11.1	69	4.4
8.....	103	6.6	32	2.0
9+.....	84	5.3	42	2.7
Total.....	1,571	100.0	1,571	100.0

As in Canada, the two-person household is the most common in the Province. It represented 24 per cent of all homes in Ontario in 1960. An additional 21 per cent had four persons, 19 per cent three persons, and 14 per cent

¹In the sections entitled "Characteristics of Occupied Dwellings" and "Household Facilities and Equipment", the figures refer to June 1951, May 1958, May 1959 and May 1960.

five persons. Six persons or more were found in 17 per cent of Ontario's homes and one person in seven per cent. The two-person household was predominant in 1951, followed by those with three persons.

Tenure of Occupied Dwellings: The expansion of the residential sector in the construction industry in recent years has been characterized by an increase of home ownership in the Province. Seventy-three per cent of all occupied dwellings in Ontario were owner-occupied in 1960, compared with 70 per cent in 1951 and 57 per cent in 1941. Some 68 per cent of Canadian homes were owner-occupied in 1960. Although the number of rented homes in the Province rose in the period 1951 to 1957 and again in 1959 and 1960, the proportion of these homes has fallen since 1951. All but six per cent of the rented households in 1960 were let for cash. Those not rented for cash included considerations such as payment in kind or services, or were rent-free.

TENURE OF OCCUPIED DWELLINGS IN ONTARIO,
1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
		1960/1951	1960/1959				
Total	(000's) %	1,181 (100.0)	1,479 (100.0)	1,528 (100.0)	1,571 (100.0)	33.0	2.8
Owned	(000's) %	821 (69.5)	1,095 (74.0)	1,130 (74.0)	1,153 (73.4)	40.4	2.0
Rented	(000's) %	360 (30.5)	384 (26.0)	398 (26.0)	418 (26.6)	16.1	5.0

Household Facilities and Equipment

Water Supply: Ontario has a higher percentage of households with both hot and cold running water piped inside than the nation as a whole. There has been a steady increase in the proportion of dwellings with both hot and cold water piped inside from 69 per cent in 1951 to 88 per cent in 1960. On the other hand, there has been a decline in the percentage of homes with cold water only piped inside as well as in homes with no water supply piped inside. Homes with cold water only represented six per cent of all occupied dwellings in 1960, as against 14 per cent in 1951. The share with neither hot nor cold fell from 18 per cent to six per cent in this period. Most households in the Province with piped-in water receive their supply from community water main systems. However, about 16 per cent are served by private sources such as wells and springs.

PIPED-IN WATER SUPPLY IN OCCUPIED DWELLINGS IN ONTARIO,
1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
		1960/1951	1960/1959				
Total	(000's) %	1,181 (100.0)	1,479 (100.0)	1,528 (100.0)	1,571 (100.0)	33.0	2.8
Hot and Cold	(000's) %	811 (68.7)	1,276 (86.3)	1,317 (86.2)	1,379 (87.8)	70.0	4.7
Cold only	(000's) %	160 (13.5)	95 (6.4)	103 (6.7)	100 (6.4)	-37.5	-2.9
None	(000's) %	210 (17.8)	108 (7.3)	108 (7.1)	92 (5.9)	-56.2	-14.8

Bath Facilities: The proportion of occupied dwellings in Ontario with the exclusive use of an installed bathtub or shower rose from 68 per cent in 1951 to 86 per cent in 1960. The percentage with shared use has declined over the past eight years and now stands at a new low of 2.0 percentage points. The proportion of households without installed bath facilities has steadily declined from 27 per cent to 12 per cent between 1951 and 1960. The Province has a higher proportion of homes with exclusive bath facilities and a lower percentage with shared or no bath facilities than Canada as a whole.

INSTALLED BATH FACILITIES IN OCCUPIED DWELLINGS IN
ONTARIO, 1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
		1960/1951	1960/1959				
Total	(000's) %	1,181 (100.0)	1,479 (100.0)	1,528 (100.0)	1,571 (100.0)	33.0	2.8
Exclusive Use	(000's) %	805 (68.2)	1,248 (84.4)	1,308 (85.6)	1,353 (86.1)	68.1	3.4
Shared Use	(000's) %	55 (4.7)	32 (2.2)	26 (1.7)	32 (2.0)	-41.8	23.1
None	(000's) %	321 (27.1)	199 (13.4)	194 (12.7)	186 (11.8)	-42.1	-4.1

Heating Fuel: Oil, gas, coal and coke are the principal heating fuels in a larger percentage of occupied dwellings in Ontario than in Canada. Wood, on the other hand, continues to occupy a declining percentage and was used in less than five per cent of all occupied dwellings in 1960.

Oil, which displaced coal as the principal heating fuel in 1954, was burned in 65 per cent of Ontario's households in 1960. This compares with 25 per cent in 1951. Gas, although still relatively unimportant in 1960, is growing rapidly in popularity. In 1951, a mere four per cent of the Province's homes used it for heating. By 1958, the proportion had risen to 15 per cent, by 1959 to 17 per cent but it decreased to 16 per cent in 1960. Gas was second in importance as a principal heating fuel in 1960. Coal or coke is used in a decreasing number of homes in Ontario. Whereas 57 per cent of Ontario's homes used coal or coke in 1951, only 14 per cent did so in 1960. There has also been a decline in the proportion of households using wood as their main heating fuel. It was burned in less than five per cent of occupied dwellings in 1960, against five per cent in 1959 and 14 per cent in 1951.

PRINCIPAL HEATING FUEL IN OCCUPIED DWELLINGS IN
ONTARIO, 1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
		1960/1951	1960/1959				
Total*	(000's) %	1,181 (100.0)	1,479 (100.0)	1,528 (100.0)	1,571 (100.0)	33.0	2.8
Oil	(000's) %	294 (24.9)	855 (57.8)	921 (60.3)	1,019 (64.9)	246.6	10.6
Gas	(000's) %	45 (3.8)	223 (15.1)	266 (17.4)	243 (15.5)	440.0	-8.6
Coal or Coke	(000's) %	673 (57.0)	307 (20.8)	261 (17.1)	221 (14.1)	-67.2	-15.3
Wood	(000's) %	167 (14.1)	92 (6.2)	78 (5.1)	76 (4.8)	-54.5	-2.6
Supplementary Heating Fuel	(000's) %	175 (14.8)	185 (12.5)	175 (11.5)	**		

*Includes Other.

**Not included in 1960 Survey.

Cooking Equipment: The electric stove is by far the most popular type of cooking equipment in Ontario. It was used in 75 per cent of occupied dwellings in 1960, compared with 49 per cent in 1951. Second in popularity is the gas range. It was used in 26 per cent in 1951, 24 per cent in 1959 and 19 per cent in 1960.

The number of Ontario's homes using wood, coal, kerosene or oil has been declining since 1951. The wood or coal range was used in five per cent of the Province's households in 1960, compared with about one-quarter in 1951. Very few homes (less than 0.3 per cent) used the kerosene or oil stove in 1960.

COOKING EQUIPMENT IN OCCUPIED DWELLINGS IN ONTARIO,
1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
						1960/1951	1960/1959
Total*	(000's)	1,181	1,479	1,528	1,571	33.0	2.8
	%	(100.0)	(100.0)	(100.0)	(100.0)		
Electric	(000's)	573	1,003	1,068	1,179	105.8	10.4
	%	(48.5)	(67.8)	(69.9)	(75.0)		
Gas	(000's)	307	343	345	304	-1.0	-11.9
	%	(26.0)	(23.2)	(22.1)	(19.4)		
Wood or Coal	(000's)	278	118	102	76	-72.7	-25.5
	%	(23.5)	(8.0)	(6.6)	(4.8)		
Kerosene or Oil	(000's)	11	5	4	**	—	—
	%	(0.9)	(0.3)	(0.3)			

*Includes Other and None.

**Less than 4,000.

Refrigeration: Almost all of Ontario's homes have refrigeration. It was available in 97 per cent of all homes in 1960, compared with 82 per cent in 1951 and 60 per cent in 1941. The Province has a higher proportion of households with refrigeration than Canada as a whole.

The mechanical refrigerator, operated on electricity or, less frequently, on gas or kerosene, is by far the most common type. It was found in 97 per cent of the Province's occupied dwellings in 1960, as against 62 per cent in 1951. An increasing number of households have home freezers, while the number with ice-boxes is falling. Between 1951 and 1960, the percentage with an ice-box fell from 20 per cent to less than one per cent. Home freezers, which are generally kept in addition to another form of refrigeration, were found in 11 per cent of the Province's occupied dwellings in 1960.

REFRIGERATION FACILITIES IN OCCUPIED DWELLINGS IN
ONTARIO, 1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
						1960/1951	1960/1959
Total*	(000's)	1,181	1,479	1,528	1,571	33.0	2.8
	%	(100.0)	(100.0)	(100.0)	(100.0)		
Refrigerator, Mechanical	(000's)	729	1,405	1,468	1,520	108.5	3.5
	%	(61.7)	(95.0)	(96.1)	(96.8)		
Ice-box	(000's)	236	22	13	10	-95.8	-23.1
	%	(20.0)	(1.5)	(0.9)	(0.6)		
None	(000's)	208	52	47	41	-80.3	-12.8
	%	(17.6)	(3.5)	(3.1)	(2.6)		
Home Freezer	(000's)	**	117	141	176	—	24.8
	%		(7.9)	(9.2)	(11.2)		

*Includes Other.

**Not listed.

Other Living Conveniences: The radio continues to be the most common living convenience and was to be found in all but four per cent of Ontario's homes in 1960. A further breakdown of households with radios reveals that 60 per cent had one radio; 26 per cent, two radios; nine per cent, three radios and five per cent, more than three radios.

The number of telephones in the Province has shown steady increases since 1951, and in 1960 less than nine per cent of occupied households were without telephones. Powered washing machines—almost all of which were operated by electricity—were available in 88 per cent of households. The proportion of occupied dwellings with television stood at 89 per cent. Most homes (76 per cent) had one passenger automobile, while 11 per cent had two or more. Vacuum cleaners were available in 78 per cent and electric sewing machines in 43 per cent.

Certain other living conveniences are being increasingly utilized in Canada. In 1960, 51 per cent of Ontario's households had electric floor polishers, 32 per cent had power mowers, 35 per cent had hand mowers, 17 per cent were equipped with electric clothes dryers and 10 per cent had one or more outboard motors. All these living conveniences were to be found in more homes in Ontario than in any other Province.

The greatest proportionate increase between 1959 and 1960 occurred in the number of occupied dwellings with televisions, which rose by eight per cent. The number with electric sewing machines increased by seven per cent, and with vacuum cleaners and automobiles by six and five per cent, respectively.

The rising standard of living in the Province is evidenced by a comparison of the proportion of homes with certain specified living conveniences in 1951 and 1960. For example, only slightly more than one-half of occupied dwellings had vacuum cleaners and passenger automobiles in 1951, compared with 78 and 76 per cent, respectively, in 1960. The telephone, powered washing machine and radio were already found in a high percentage of homes in 1951, but they, nevertheless, exhibited 66, 49 and 38 per cent increases, respectively, between 1951 and 1960.

SPECIFIED LIVING CONVENIENCES IN OCCUPIED DWELLINGS
IN ONTARIO, 1951 AND 1958 TO 1960

		1951	1958	1959	1960	% Change	
						1960/1951	1960/1959
Total	(000's)	1,181	1,479	1,528	1,571	33.0	2.8
	%	(100.0)	(100.0)	(100.0)	(100.0)		
Radio	(000's)	1,098	1,417	1,460	1,510	37.5	3.4
	%	(93.0)	(95.8)	(95.5)	(96.1)		
Telephone	(000's)	865	1,321	1,377	1,433	65.7	4.1
	%	(73.2)	(89.3)	(90.1)	(91.2)		
Powered Washing Machine	(000's)	927	1,309	1,351	1,382	49.1	2.3
	%	(78.5)	(88.5)	(88.4)	(88.0)		
Television	(000's)	*	1,204	1,300	1,402	—	7.8
	%		(81.4)	(85.1)	(89.2)		
Automobile	(000's)	640	1,103	1,149	1,201	87.7	4.5
	%	(54.2)	(74.6)	(75.2)	(76.4)		
Vacuum Cleaner	(000's)	648	1,096	1,148	1,222	88.6	6.4
	%	(54.9)	(74.0)	(75.1)	(77.8)		
Electric Sewing Machine	(000's)	*	572	628	672	—	7.0
	%		(38.7)	(41.1)	(42.8)		

*Not listed.

Survey of Production

The Survey of Production covers the activities of those industries which are chiefly engaged in the actual production of commodities. It is, therefore, less embracing than the Gross Domestic Product series shown in *National Accounts* which is concerned with all industries, including transportation, communication, trade, finance and service. Net value of commodity production or "value added" figures are used in preference to gross value in order to eliminate inter-industry duplications which might occur when gross value of production figures for a number of industries are combined. A more accurate assessment of the contribution of each industry to the whole is thus possible. Value added is computed by deducting from the total value of output (excluding indirect taxes) for each industry, the cost of materials, fuel, purchased electricity and process supplies consumed in the production process.

NET VALUE OF PRODUCTION IN ONTARIO, BY INDUSTRY,
1951 AND 1957 TO 1959

		1951	1957	1958	1959 ²
Primary Industries					
Agriculture	(\$000's) %	554,100 (10.6)	513,946 (6.8)	590,306 (7.7)	527,200 (6.5)
Mining	(\$000's) %	178,554 (3.4)	309,475 (4.1)	401,231 (5.2)	515,500 (6.4)
Electric Power	(\$000's) %	127,319 (2.4)	249,187 (3.3)	261,370 (3.4)	304,160 (3.7)
Forestry	(\$000's) %	118,526 (2.3)	128,521 (1.7)	87,633 (1.2)	97,200 (1.2)
Fisheries	(\$000's) %	7,035 (0.1)	7,047 (0.1)	7,271 (0.1)	4,890 (0.1)
Trapping	(\$000's) %	5,214 (0.1)	2,576 *	2,713 *	2,450 *
Secondary Industries					
Manufactures	(\$000's) %	3,569,400 (68.1)	5,047,711 (66.7)	4,914,074 (64.2)	5,360,000 (66.2)
Construction	(\$000's) %	684,300 (13.0)	1,309,064 (17.3)	1,394,626 (18.2)	1,288,600 (15.9)
Total	(\$000's) %	5,244,448 (100.0)	7,567,527 (100.0)	7,659,224 (100.0)	8,100,000 (100.0)

*Less than 0.05 per cent

²Estimated by the Ontario Department of Economics.

It is estimated that in 1959 the net value of production for Ontario reached \$8.1 billion, the highest figure ever recorded. It exceeded the 1958 level by almost \$441

million or 5.8 per cent and was more than three times the value recorded at the end of World War II. On a per capita basis, net value in 1959 was \$1,361; this was \$41 higher than in 1958, \$220 more than in 1951 and \$743 greater than in 1946.

The six primary industries accounted for 18 per cent of the Province's estimated net value of production in 1959, compared with 19 per cent in 1951. Their total net value rose from \$991 million to \$1,451 million during this period, an increase of 46 per cent. Agriculture, the major primary industry and the third most important in the Province, measured by net value of production, contributed some \$527 million in 1959. This represented 6.5 per cent of the Provincial total, compared with 10.6 per cent in 1951. The net value of mineral production reached an estimated \$515.5 million, nearly three times the value in 1951 and nearly five times the post-war level. The production of electric power resulted in a net value of about \$304 million in 1959, 16 per cent higher than in the previous year and more than double the 1951 level. The net value of forestry production stood at \$97.2 million, some \$9.6 million more than in 1958. The fisheries registered a net value of some \$4.9 million, the lowest figure recorded during the post-war period. Trapping, the smallest of all the primary industries, showed a net value of \$2.5 million in 1959.

Manufacturing is the leading component of the Province's net value of production, accounting in 1959 for over 66 per cent of the total. The net value for that year, \$5.4 billion, was \$446 million or 9.1 per cent higher than in 1958 and \$1.8 billion or 50.2 per cent above the 1951 level. Construction is the second largest component. In 1959, it had an estimated net value of \$1.3 billion. Although below the record achieved in the previous year, this was nearly double the \$684 million reached in 1951. Construction accounted for 16 per cent of the total, compared with 13 per cent in 1951.

Tourist Trade

From the rugged forests and beautiful lakes of the north to the more gentle yet equally pleasant panoramas of the south, Ontario is a land of interest, of enjoyment and of scenic magnificence which each year attracts a myriad of tourists.

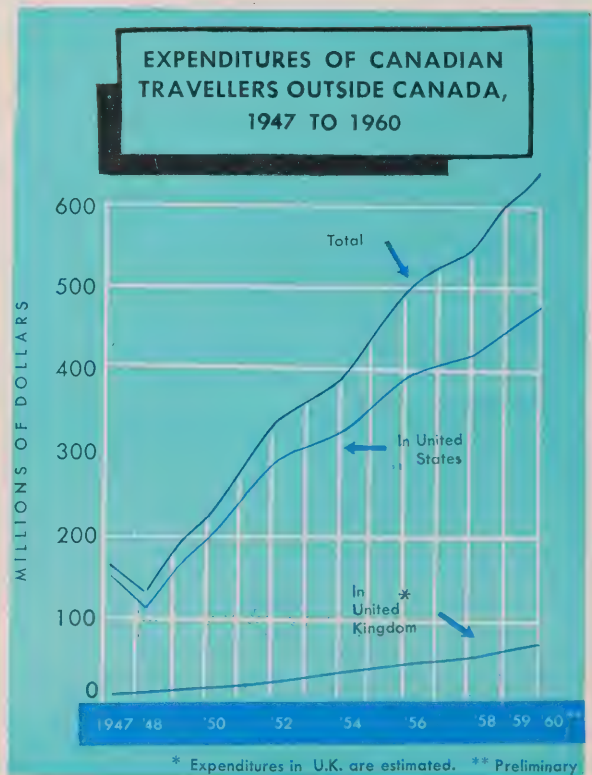
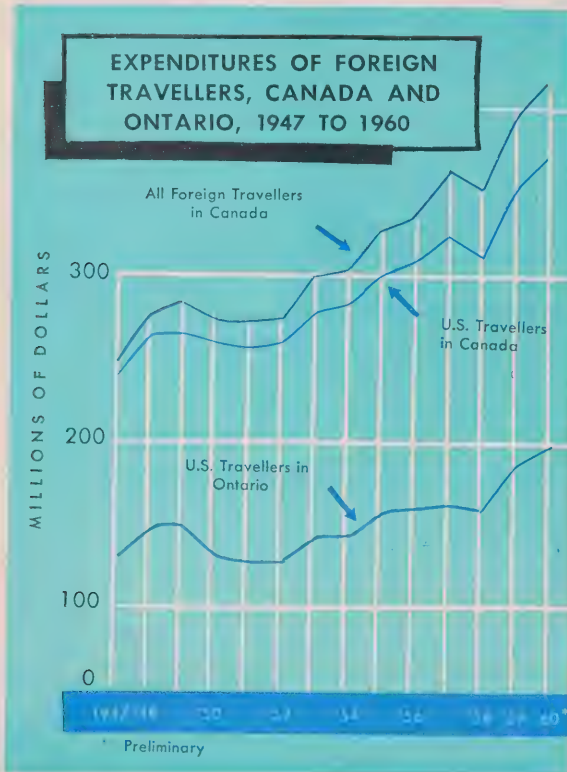
The tourist trade is one of Ontario's largest sources of foreign exchange, and its benefits are not confined to hotel and resort owners, but are felt throughout the Provincial economy. The fields of entertainment, sports and personal services, all receive an added stimulus from this flourishing industry, while other trades, such as transportation and communications, automobile servicing, wholesaling and retailing experience its effects, as well. In addition, the tourist trade is a large direct employer of labour. Although much of the employment is seasonal, full-time jobs are created in many of its related industries. In the Districts of Muskoka, Haliburton and Parry Sound, the tourist industry is actually the dominant economic activity.

New records were established in expenditures by foreign visitors in Canada in 1960. Total expenditures reached

\$417 million—the highest ever recorded—and were \$16 million more than in 1959. Expenditures by United States residents, which were more than 90 per cent of the total, climbed to an unprecedented high of \$374 million.

Expenditures of Canadian travellers in other countries have been higher than expenditure by foreign visitors to Canada since 1951. In 1960, Canadians spent an estimated \$632 million abroad—\$34 million more than in 1959. The 1960 expenditure widened the gap between Canadian spending abroad and the nation's receipts from foreign visitors by \$11 million more than in the previous year.

Ontario with its wide variety of tourist attractions and facilities, has always accounted for at least one-half of the expenditures of United States visitors, and 1960 was no exception. This Province received \$197 million from American tourists in 1960. A basic factor in the future maintenance and success of this thriving industry is the extensive promotion and publicity programs sponsored by the Ontario Government. This has, however, been aided and abetted by unceasing improvement in standards and



accommodations, facilities and services by the proprietors of the trade.

Over 80 per cent of all American tourists enter Canada by automobile. As of October 1, 1959, all non-resident motorists must be in possession of a traveller's vehicle permit while in Canada. Prior to this date, however, permits were not necessary for those remaining in the country for less than 48 hours. During the first nine months of 1959, the non-permit group accounted for over 65 per cent of all foreign vehicles entering Canada while the travellers' vehicle permits group was responsible for 29 per cent. Commercial vehicles which were almost two and one-half times the 1946 level, totalled over 478,000 in 1959. Commercial vehicles entering the Province numbered over 200,000 in 1959 and accounted for 42 per cent of the total for the nation as a whole. Over 60 per cent of all vehicles entering the country in the first nine months of 1959, with and without travellers' permits, entered through ports in Ontario.

FOREIGN VEHICLES ENTERING CANADA THROUGH PORTS IN CANADA AND ONTARIO, SELECTED YEARS 1946 TO 1959

	Non-Permit Class (Local Traffic)		Travellers' Vehicle Permits		Commercial Vehicles	
	Canada	Ontario	Canada	Ontario	Canada	Ontario
1946	3,695,958	2,624,849	1,492,106	903,096	183,136	81,441
1951	5,058,243	3,670,008	2,219,601	1,343,083	268,790	108,366
1956	6,111,066	3,915,963	2,484,444	1,485,360	450,923	156,942
1957	6,287,072	3,892,033	2,555,074	1,533,842	458,162	170,975
1958	6,166,889	3,878,340	2,547,391	1,499,740	453,100	171,695
1959	5,028,419*	3,314,373*	2,274,737*	1,344,836*	478,225	200,914

*Due to changes in the regulations governing the entrance of foreign vehicles into Canada, this figure represents the total for the first nine months in 1959.

that year, these facilities brought over 865,000 persons into the Province.

Travel by air has increased spectacularly during the post-war period. In 1960, more than one-fifth of all

FOREIGN TRAVELLERS ENTERING CANADA AND ONTARIO FROM THE UNITED STATES, BY SHIP, BUS, RAIL AND AEROPLANE, SELECTED YEARS 1946 TO 1960

	Ontario				Canada Total	Ontario as % of Canada
	Boat	Bus	Rail	Aeroplane		
1946	129,068	308,813	307,725	29,049	774,655	50.3
1951	125,084	312,824	208,499	59,556	705,963	53.0
1956	243,682	233,930	183,634	135,075	796,321	54.7
1957	258,139	255,830	168,527	150,185	832,681	54.7
1958	221,443	245,161	147,621	156,028	770,253	54.5
1959	258,638	264,605	130,747	183,362	847,352	67.9
1960	294,444	281,034	113,272	176,430	865,180	55.1

persons entering Ontario by public transportation—ship, bus, rail or aeroplane—did so by air. This compares with only four per cent in 1946. In actual numbers, air travellers have increased to almost six times during the 13-year period. Travel by ship has also become more popular since the war. Although the number of travellers using this mode of transportation dropped in 1958, there was a 21 per cent increase in 1959 and a nine per cent increase in 1960. In fact, boat travel formed the largest single component—34 per cent—of all means of travel in 1960. On the other hand, the number of visitors from the United States arriving both by rail and bus has shown an overall decline since the end of World War II. Taken together, however, these two groups accounted for over 46 per cent of all travellers entering the Province other than by motor vehicle. While these categories do not include local bus traffic between border communities, or "in transit" rail passengers, they do include persons travelling for reasons other than pleasure.

Canada received more visitors from overseas countries in 1959 than ever before. Non-resident visitors arriving directly from overseas through Canadian ports of entry numbered some 41,600 in 1959, an increase of approximately 3,200 or eight per cent since 1958. In addition, an estimated 25,000 persons arrived via the United States. A trend toward air travel is revealed in the type of transportation used by overseas visitors to Canada. In 1959, the proportion of these visitors arriving by air was 57 per cent, an increase of three percentage points over 1958.



Courtesy—Ontario Department of Travel and Publicity.

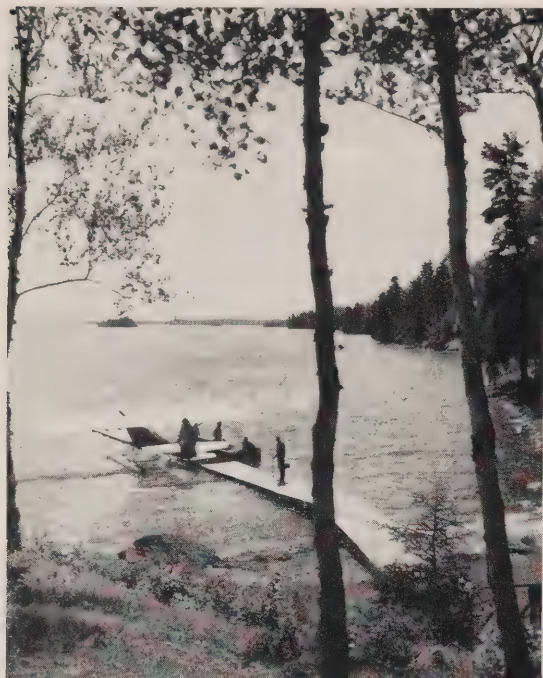
View from hill overlooking the Scenic Highway No. 35 near Dorset.

The two most popular Ontario ports of entry for foreign vehicles in 1959 were Windsor and Fort Erie. Next in popularity was Niagara Falls. These three ports together accounted for almost 82 per cent of all foreign vehicles entering Ontario.

In 1960, about 55 per cent of all foreign travellers who came to Canada from the United States by means of ship, bus, rail or aeroplane, entered through Ontario. During

Factors influencing this preference for air travel have no doubt been the economy flights and the expansion of services offered by airlines.

For the accommodation of the angler, hunter or sight-seer, Ontario is studded with tourist establishments.



Courtesy—Ontario Department of Travel and Publicity.

Preparation for a fly-in fishing trip from Eagle Lake, near Vermilion Bay.

Hotels, tourist resorts, outfitters' camps and motel units provided facilities for about 280,000 in 1959, while additional accommodation was available in trailer camps and camping grounds. There were 1,494 hotels in Ontario in 1959. Full year licensed hotels—the largest component of total hotels—accounted for 60 per cent while seasonal non-licensed hotels and full year non-licensed hotels accounted for 27 per cent and 10 per cent, respectively. Full year licensed hotels, brought in by far the major share of total operating receipts and were, at the same time, responsible for 61 per cent of total bed capacity.

Total operating receipts for all types of hotels reached \$164 million in 1959, some \$11 million more than the preceding year. A proportional breakdown of hotel receipts by source reveals a fairly constant relationship over the past few years. In 1959, the sale of alcoholic beverages accounted for 40 per cent of the total, while rooms and meals contributed 24 and 23 per cent, respectively. On the expenditure side, salaries and wages have increased to well over two and one-half times the 1949 figure and in 1959 totalled \$46.0 million.

In 1960, Ontario's hotel establishments increased their accommodations to take care of the expected influx of visitors. The Department of Travel and Publicity estimated that 166 completely new establishments with a total of 2,380 rental units were constructed. Moreover, 1,460 rental units were added to 442 existing establishments in the same year.

NUMBER, BED CAPACITY AND TOTAL OPERATING RECEIPTS OF HOTELS, CLASSIFIED BY NATURE OF OPERATION, ONTARIO, 1959

	Total All Hotels	Full Year Licensed Hotels	Full Year Non- Licensed Hotels	Seasonal Licensed Hotels	Seasonal Non- Licensed Hotels
Number of Hotels	1,494	893	143	49	409
%	(100.0)	(59.8)	(9.6)	(3.3)	(27.3)
Bed Capacity	90,734	55,583	6,443	4,407	24,301
%	(100.0)	(61.3)	(7.1)	(4.8)	(26.8)
Total Operating Receipts (\$000's)	163,924	149,898	2,652	3,759	7,615
%	(100.0)	(91.4)	(2.2)	(1.7)	(4.7)

Through a long-range Government program, facilities such as camping grounds, trailer sites and picnic areas are being rapidly expanded. The Department of Lands and Forests operated 71 Provincial Parks in 1960. The



Courtesy—Ontario Department of Travel and Publicity.

Fishing in one of the numerous lakes at Havelock.

oldest, largest and most highly developed of these is Algonquin Park in Northeastern Ontario. This park contains four public camping grounds within its nearly 3,000 square miles of forest and game reserve. Besides the excellent fishing, camping, boating and hiking oppor-

tunities, this sprawling area has the added feature of a Nature Program carried out by the naturalists of the Department of Lands and Forests.

The Ontario-St. Lawrence Development Commission's parks and historic sites along the St. Lawrence River and the Bay of Quinte will be completed by 1961. This area which is already attracting large numbers of sight-seers will include more accommodation for these visitors. Plans are now being made to develop the Eglinton Flats and Scarborough Bluffs into parklands. These two parks will undoubtedly provide valuable additions to Metropolitan Toronto's parklands.

An important requirement of the tourist trade is the maintenance of an adequate system of roads and highways. At the end of 1959, there were nearly 500 more miles of road in Ontario than the 85,093 miles which existed a year earlier. In the northern portion of the Province, a major expansion of the tourist industry is anticipated as a result of the numerous highway projects under way, including the completion of the Trans-Canada Highway.

In order to determine some of the characteristics of foreign travel in Canada, a survey initiated in 1955 was further expanded in 1958. Covering only automobile traffic which entered Canada on travellers' vehicle permits, this survey involved the mailing of some 128,000 special sampling questionnaires to residents of the United States who had visited Canada during the year. The questionnaire sought information on the purpose and length of visit, accommodation used, total expenditures in Canada, and whether the traveller's impression of Canada was favourable or unfavourable. Recreation was given as the purpose for coming to Ontario by 72 per cent of the respondents, while about 21 per cent came to visit friends or relatives. The average length of stay at destination in this Province was about nine days, while the average

length of time spent in travelling to and from destination was lower in Ontario than in any other province. The motel or motor court seemed to be the most popular type of accommodation, although it must be pointed out again, that the survey covered only automobile traffic. Some 26 per cent of the respondents used motel accommodation, while 24 per cent stayed with relatives and friends. Vacation cottages proved far more popular in Ontario than in any other province, with 22 per cent using that type of accommodation. Expenditures showed considerable variation according to the purpose of the trip. Canadian scenery, hospitality and courtesy, fishing, roads, beauty of cities and towns, were aspects of their stay which elicited favourable comment from the American visitors, while complaints involved road conditions and lack of road signs, high prices and the discount on United States dollars. Approximately 82 per cent of the questionnaires returned contained favourable comment.

Although a great deal is known about visitors to Canada, there is no way of estimating Canadian tourism within the Dominion and consequently within Ontario. Studies of tourist travel made in the United States, however, have shown that as personal disposable incomes rise, expenditures on travel increase rapidly. After the necessities have been provided for, travel evidently has high priority. A similar pattern is probable in Canada. As a result, the growth of personal disposable income in this country has likely been accompanied by a rapid growth in tourist expenditure. Ontario recorded the highest per capita disposable income of all the provinces in 1959 and, in addition, showed a greater increase over the previous year than the Dominion as a whole. As a result, the people of the Province of Ontario are probably responsible for a major share of the growing Canadian tourist expenditure—a large proportion of which is spent within the borders of their own Province.



Courtesy—Ontario Department of Travel and Publicity.

Ice-scoot racing at the Winter Carnival, Penetanguishene.

Transportation

The many waterways of Ontario provided our first means of transportation. Since those early days, a network of roads and railways has been built so that ground transportation facilities are now within reach of virtually all who live in the Province. Air service is available as well, not only in the thickly populated areas of the southern and central sections of Ontario, but in the otherwise inaccessible reaches of our far North. In addition, pipelines now provide low-cost means of transporting natural gas and oil for use in our homes and industries.

Water Transport

The Great Lakes-St. Lawrence waterway, a tremendous natural transportation system extending some 2,200 miles into the heart of the continent, has played a vital part in

the development of Ontario, of Canada and even of North America. Along this route have come explorers, traders and settlers, and always it has proved to be a cheap and convenient means of moving people and goods.

The unnavigable stretches of the waterway were bypassed early in the 19th Century by a series of canals and locks which, between Montreal and Prescott, were eventually built to a minimum depth of 14 feet. It was this section of the waterway which prevented most ocean ships from reaching the Great Lakes and kept the large lake freighters from descending the St. Lawrence River to tide-water. Construction of the St. Lawrence Seaway with its minimum depth of 27 feet has eliminated this bottleneck. The navigation channels of the Welland Canal were also deepened to 27 feet. The Seaway was opened to shipping on April 25, 1959.



Courtesy—The Hydro-Electric Power Commission of Ontario.

The Iroquois Lock, Canal and Control Dam, part of the St. Lawrence Seaway and Power Development.
The Iroquois Lock was the first lock completed on the Seaway.

Large lakers operating in the Upper Great Lakes can pass into and out of Lake Superior by way of the MacArthur Lock (American) at Sault Ste. Marie. Built in 1943, it is 800 feet long, 80 feet wide and has a depth of 31 feet. Four smaller locks are located at the Sault, one Canadian and three American. The Canadian lock has a minimum depth of only 18.25 feet. Construction of a new lock to replace the Poe Lock (American) is planned for completion in 1965. It will be 1,000 feet long, 100 feet wide and 32 feet deep.

Other canals in Ontario are used primarily by pleasure craft and practically no freight passes through them. These include the Rideau, which runs between the Ottawa River and Lake Ontario with a minimum depth of five feet, and the Trent, between Lake Ontario and Georgian Bay, with a depth of from four to eight feet.

The industrial areas of Eastern Canada depend on a variety of raw materials many of which have to be transported over very long distances. They use coal and iron ore from the states bordering Lake Erie, iron ore from the Quebec-Labrador area, wheat from the Canadian West, fuel oil from South America and many other commodities. The Great Lakes-St. Lawrence waterway has become an essential transportation system by which these raw materials can be shipped in large quantities at comparatively low cost. If our economy had to depend on alternative means of obtaining these goods, the excessive transportation costs would put them beyond our reach. This waterway, moreover, allows Canada's grain-producing areas to bridge the tremendous distance to their export markets at a reasonably low cost, thus helping them to face the keen world competition which has developed in this important commodity.

While Canadian canals are open to the vessels and traffic of all nations, next to domestic traffic, that of the United States accounts for the largest proportion. In 1959, the latest year for which detailed data are available, out of a total of 21.2 million tons of cargo passing through the St. Lawrence canal system, 14.6 million tons were loaded in Canada, 4.6 million tons in the United States and nearly 2.0 million tons in overseas countries. Of the 27.5 million tons transported through the Welland Canal, 14.1 million tons were loaded in Canada, 12.3 million tons in the United States and 1.1 million tons overseas. On the other hand, some 10.7 million tons of the cargo going through the St. Lawrence system were unloaded in Canada, 6.8 million in the United States and 3.7 million in overseas countries, while more than 15 million tons, 8.9 million tons and 3.4 million tons of cargo going through the Welland Canal were unloaded in the three respective areas.

Even with two full seasons completed, there has not been time for a definite pattern of shipping to emerge. Certain trends, however, are evident. It would seem, for example, that although trade with overseas countries will increase, lake vessels will continue to carry the vast bulk

of the cargo through the waterway—in 1959 more than two-thirds of the cargo passing through the St. Lawrence canals and better than three-quarters of that through the Welland, was carried in lakers. This is due, in part, to the special design and carrying capacity of these vessels and the type of cargo, mostly bulk, which is handled. The trans-shipment trade will probably increase, but will be handled at ports east of the Seaway. The trend is also towards larger vessels and fewer transits, but more cargo tonnage.

An important addition to the operations of the Seaway in 1960 was the installation by the Department of Transport, for the Signal Service, of a teletype system connecting locks on both the St. Lawrence and the Welland systems. This teletype line connects Toronto to such ports as Montreal and Kingston. Every vessel clearance will be reported and owners will be able to follow the progress of their ships. More accurate information as to probable arrival of ships will also be available to port authorities thus allowing berthing space to be allocated for quicker handling. Two-way radio communication between the Toronto Berthing Master and shipping was also established last year for the first time.

Traffic through both the St. Lawrence system (21.2 million cargo tons) and the Welland Canal (27.5 million cargo tons) was higher in 1959 than in the previous year, 80 and 29 per cent, respectively, while it was 3½ times and 2½ times the volume shipped through the respective canals in 1946.

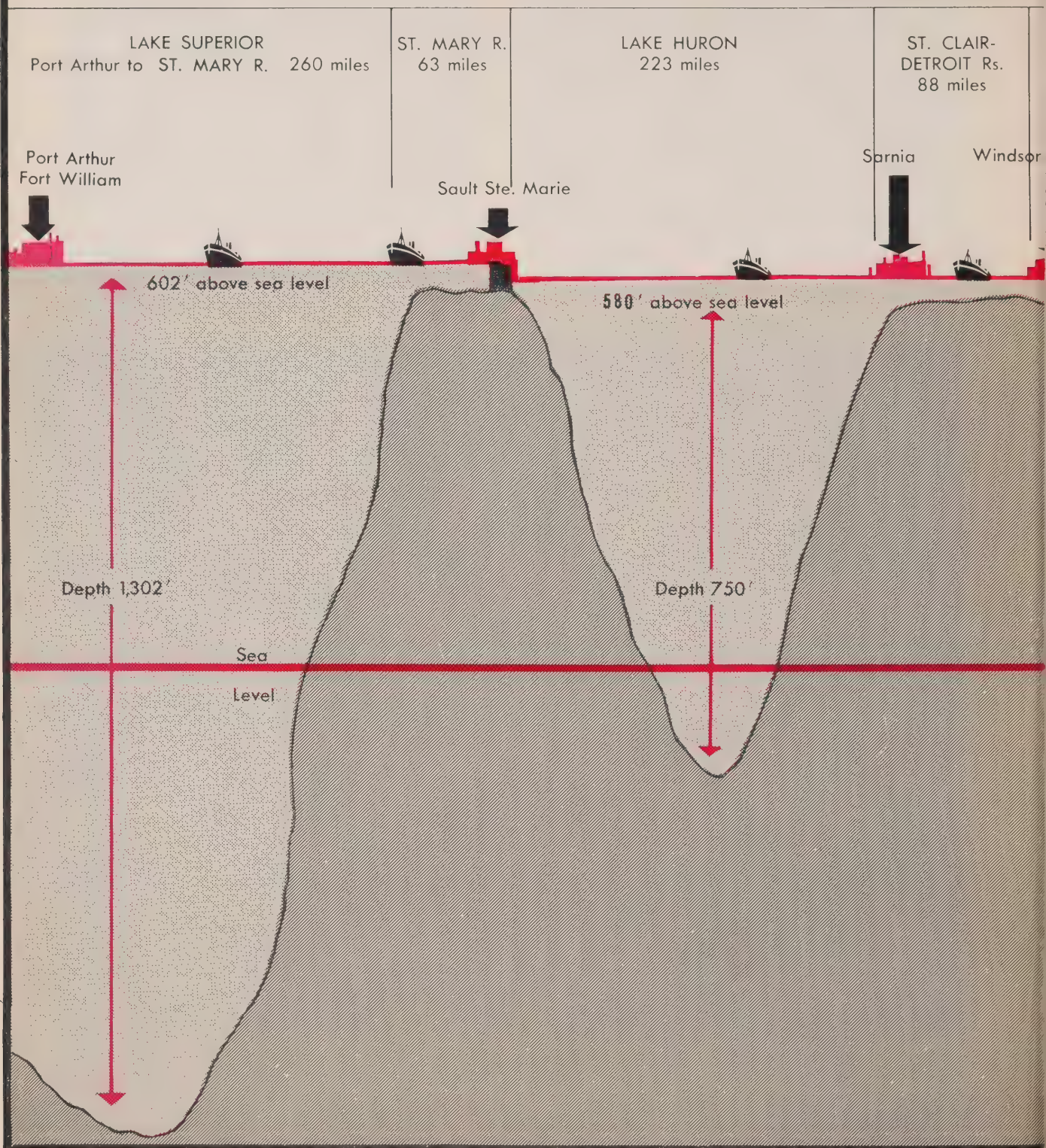
Most of the traffic on the waterway comprises vessels especially designed to carry bulk goods of low unit value. In 1959, some 91 per cent of the cargo passing through the St. Lawrence canals and about 93 per cent of that through the Welland Canal was of this type. The most important commodities carried were iron ore, grain, bituminous coal and petroleum products. More than half of the cargo moving up through both canals was iron ore, while the most important commodities coming down the St. Lawrence were wheat and barley (48 per cent of downward traffic) and down the Welland, coal, wheat, iron ore and barley (65 per cent).

Some package freighters also ply the waters of the Great Lakes-St. Lawrence waterway, carrying a wide range of general merchandise. Package freight is of high value in relation to size and weight. These vessels, which usually run on regular schedules, are faster than bulk carriers and a few carry passengers.

Preliminary 1960 data show a decrease in total tonnage carried through the St. Lawrence system (20.8 million tons compared with 21.2 million or a decline of two per cent) but an increase in the volume using the Welland Canal (29.5 million tons as against 27.5 million, a rise of seven per cent). As in 1959, most of the cargo handled was bulk, more than three-quarters was carried in lakers and the most important commodities were iron ore (up-

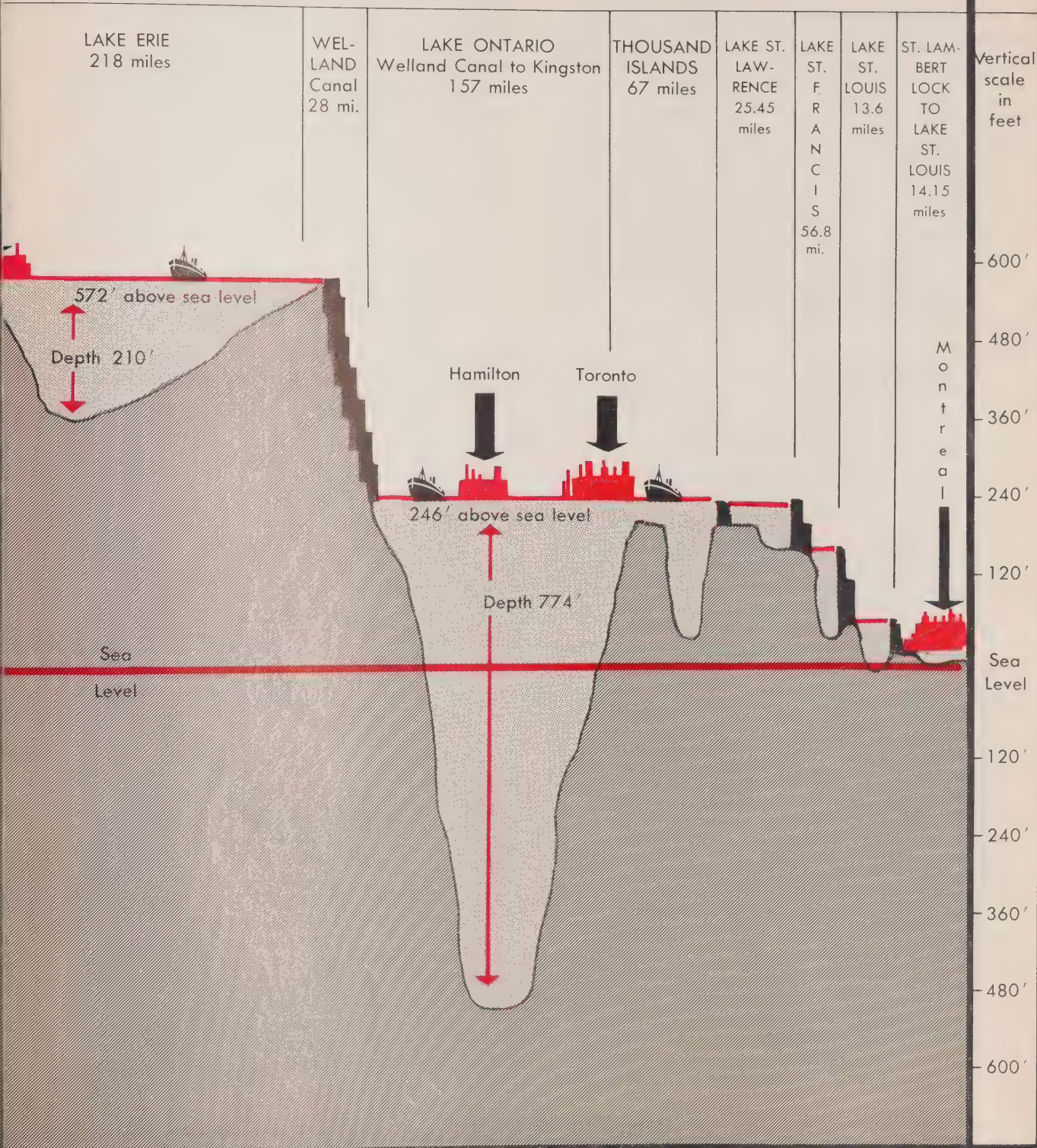
ST. LAWRENCE

The 1,219-mile Canadian Route From



ICE SEAWAY

Montreal to Port Arthur-Fort William



bound) and wheat, barley, bituminous coal and iron ore (downbound). One major change in the traffic pattern did occur, however. There was a sharp decline in the volume of upbound traffic—a decrease of 20 per cent through the St. Lawrence and of 10 per cent through the Welland. This was due largely to a reduction in the volume of iron ore shipped from St. Lawrence ports to Hamilton and ports on Lake Erie.

Farther west, where ships pass to and from Lake Superior by way of the Sault Ste. Marie canals, cargoes declined during 1959. Some 70.9 million tons passed through the Canadian and American canals, compared with 76.7 million tons in 1958, a drop of 7.5 per cent. Only a fraction of this cargo—1.2 million tons—used the Canadian lock. Fuel oil, wheat, gasoline, sand, gravel and stone, newsprint and wood pulp were the main commodities going through the Canadian lock. A considerable amount of package freight, some 11 per cent of the total, was also transported through this lock. Iron ore alone (47.2 million tons) accounted for two-thirds of the cargo carried through the four United States locks, all but a fraction moving toward the east. Wheat (7.5 million tons) was the next most important commodity, followed by bituminous coal (7.4 million tons). All of the former was transported out of Lake Superior while all of the latter was upbound into the lake.

An estimated 91.8 million tons of freight passed through the Sault Ste. Marie canals (Canadian and American) in 1960, 30 per cent more than in the previous year. Some 1.7 million tons, 500,000 more than in 1959, were carried through the Canadian lock. Petroleum products, wheat and wood pulp were the most important commodities handled and together accounted for about two-fifths of the total. Iron ore (67.9 million tons) was by far the largest cargo carried through the American canals; wheat (7.5 million tons) was again the next most important, followed by bituminous coal (7.0 million tons).

Adequate port and harbour facilities such as docks, wharves, grain elevators, warehouses, loading and unloading equipment, railway connections, etc., are necessary adjuncts of efficient and economic water transport and are to be found at all major Ontario ports.

More than half of all the cargo handled by ports in this Province is carried by ships in the coastwise trade. The coasting service comprises vessels of Canadian or United Kingdom registry only, which arrive at one Canadian port from another or depart from one Canadian port for another, and which unload no freight from a foreign port or load no freight destined for a foreign port. Wheat, barley and petroleum oils and products are the main commodities both loaded and unloaded and account for some two-thirds of all cargo handled in this trade.

The great bulk of Ontario's foreign shipping is with the Great Lakes area of the United States, followed by the

United Kingdom, West Germany, the Netherlands and Italy. Bituminous coal and iron ore are the chief commodities unloaded while iron ore is the main commodity loaded.

Of the eight major ports, two, Port Arthur and Fort William, are engaged almost entirely in loading cargoes either for coastwise or foreign trade. Wheat for coastwise and iron ore for foreign shipping are the main commodities loaded in Port Arthur while wheat for the coastwise trade is the main cargo loaded in Fort William.

CARGOES LOADED AND UNLOADED AT MAJOR ONTARIO PORTS, 1958 AND 1959

		Foreign		Coastwise		Total
		Loaded	Unloaded	Loaded	Unloaded	
(Cargo Tons of 2,000 lb.)						
Port Arthur	1958	1,551,072	200,766	5,387,441	187,061	7,326,340
	1959	3,260,969	144,912	5,398,739	187,097	8,991,717
Hamilton	1958	11,924	5,321,772	277,794	582,586	6,194,076
	1959	65,297	5,393,479	379,537	1,647,725	7,486,038
Toronto	1958	123,236	2,026,925	622,467	1,633,797	4,406,425
	1959	257,522	2,170,907	550,996	1,789,683	4,769,808
Sault Ste. Marie	1958	175,243	2,712,345	142,243	461,588	3,491,419
	1959	377,485	3,349,093	147,612	702,626	4,576,816
Fort William	1958	420,487	279,075	2,728,243	457,032	3,884,837
	1959	589,088	162,150	2,509,673	439,321	3,700,232
Port Colborne	1958	381,449	440,082	1,599,370	1,959,187	4,380,088
	1959	717,281	402,321	806,190	1,409,626	3,335,418
Sarnia	1958	76,898	712,205	1,700,960	551,670	3,041,733
	1959	79,725	648,577	1,720,324	582,748	3,031,374
Prescott	1958	2,824	288,277	1,447,302	1,702,099	3,440,502
	1959	5,262	159,104	557,000	798,599	1,519,965

At Hamilton, Sault Ste. Marie and Toronto, on the other hand, most of the tonnage handled is unloaded. Bituminous coal from the Great Lakes area of the United States is the principal commodity unloaded at all three ports while iron ore is also important in both Hamilton and Sault Ste. Marie and petroleum oils in Toronto.

In Port Colborne and Prescott, wheat makes up the bulk of all cargo handled, all in the coastwise trade, with somewhat more being unloaded than loaded. Sarnia's chief cargo is petroleum oils, mostly unloaded and in the coastwise trade.

Railways

Two railway systems make up most of the approximately 10,500 miles of single track operated in Ontario—the Canadian National Railways, owned by the Government of Canada, and the Canadian Pacific Railway, a joint stock company. In addition to their transcontinental routes, each has lines connecting Montreal, Toronto and southwestern Ontario and extending north from Toronto to connect with their respective across-Canada lines.

Both railways are carrying out programs for the expansion and modernization of their facilities, equipment and service. Dieselization of both lines was completed last year, new designs have been introduced for freight cars and flat cars and others are under consideration, piggyback services are being increased and the use of centralized traffic control signal systems is being extended. Both companies

have terminal development programs which include the establishment of electronically controlled hump yards for the more efficient processing of heavy volumes of traffic.

The Ontario Northland Railway is owned and operated by the Government of Ontario through the Ontario Northland Transportation Commission. Begun in 1902 as a developmental line, the Ontario Northland now operates 472 miles of track between North Bay and Moosonee. Branch lines between Swastika Junction and Noranda, Earleton and Elk Lake, and Welsh and Iroquois Falls make up an additional 95 miles of track. The last steam locomotive was replaced by a diesel in the summer of 1957, thus completing the dieselization program of the railway. A general program of improvement to plant and equipment is being carried on.

In 1959, nearly 200,000 revenue passengers, who contributed more than \$800,000 in receipts, were carried by the railway. Revenue freight totalled 2.5 million tons, from which came a revenue of \$10.6 million. Some \$2.6

million in operating revenues was realized from commercial communications services.

The Algoma Central and Hudson Bay Railway, also completely dieselized, extends north for nearly 300 miles from Sault Ste. Marie to Hearst. A 26-mile branch line is operated between Hawk Junction and Michipicoten. The company also operates cargo vessels on the Great Lakes. Other railways in Southern Ontario are the Canada Southern, a Canadian subsidiary of the Michigan Central Railroad, which operates between Niagara Falls and Windsor; the Chesapeake and Ohio Railway, between Windsor and Sarnia; the Wabash Railroad, which provides service between Windsor, Fort Erie and Niagara Falls; and the Toronto, Hamilton and Buffalo Railway.

During 1959, some 62.2 million tons of revenue freight were loaded on trains in Ontario, nearly seven per cent more than in the previous year. This included 19.3 million tons of goods received from United States rail connections. Mine products (26.2 million tons) and manufactures and



Courtesy—Ontario Northland Railway.

One of the new diesel locomotives of the Ontario Northland Railway.

miscellaneous products (23.0 million tons) together accounted for approximately four-fifths of the total volume loaded. Both were higher than in 1958—16.7 per cent and 5.8 per cent, respectively. Agricultural products made up about 13 per cent of the total, forest products six per cent and animals and animal products one per cent.

More than 70 per cent of the 71.3 million tons of revenue freight unloaded in the Province (20.2 million tons of which was delivered to U.S. rail connections) comprised mine products (28.3 million tons) and manufactures and miscellaneous products (22.7 million tons). Agricultural products accounted for some 18 per cent, forest products for nearly nine per cent and animals and animal products for less than one per cent. The main individual commodity handled by the railways was iron ore (15.5 million tons), up 68 per cent from 1958.

MAJOR COMMODITIES LOADED AND UNLOADED¹ BY RAILWAYS IN ONTARIO, 1958 AND 1959

	Loaded		Unloaded		Total	
	1958	1959	1958	1959	1958	1959
	(Thousands of Tons)					
Iron Ore.....	4,487	7,463	4,764	8,081	9,251	15,544
Wheat.....	3,004	2,530	7,115	6,820	10,119	9,350
Stone and Rock...	4,425	4,073	4,453	4,064	8,878	8,137
All Commodities..	58,192	62,207	67,629	71,271	125,821	133,478

¹Freight loaded or unloaded at stations in Ontario (including imports or exports at lake ports) plus that received from or delivered to United States rail connections.

Highways and Roads

King's Highways and Secondary Highways in Ontario are under the jurisdiction of the Provincial Government, while other roads are subject to the administration of local governing bodies—urban centres, townships and counties. The Province, however, gives substantial aid to the municipalities in the form of subsidies on approved expenditure for the construction and general maintenance of their roads and bridges.

Provincial roads make up only about 14 per cent of the total mileage, but are, in general, the best and most travelled of our roads. Many miles of dual-lane expressways and straight-line highways facilitate travel throughout the Province.

ROAD MILEAGES IN ONTARIO BY TYPE OF ROAD, SELECTED YEARS 1939 TO 1959

	Total	King's Highways	Secondary Highways	County Roads	Township Roads	Unorganized Twp. Roads	Urban Streets ¹
1939	72,358	7,268	3,198	8,325	47,530	6,217	n.a.
1946	72,959	7,640	2,837	8,710	48,071	5,701	n.a.
1951	80,888	7,813	2,710	9,359	49,040	5,022	6,944
1955	82,271	8,522	2,395	9,349	49,451	4,836	7,718
1956	83,508	8,691	2,362	9,384	50,303	4,846	7,922
1957	83,803	8,770	2,359	9,342	50,510	4,703	8,119
1958	85,093	8,944	2,476	9,349	51,178	4,692	8,454
1959	85,526	9,003	2,561	9,431	51,234	4,717	8,580

n.a. Not available.

¹Includes streets in cities, towns, villages and metropolitan areas.

The rapid increase in population, motor vehicle registrations and motor vehicle usage since the end of World War II has made it necessary to improve substantially our network of highways and streets. There were nearly 500 more miles of all types of roads in Ontario at the end of 1959 than a year earlier and some 12,500 more than at the end of the war. The number of miles of road surfaced with concrete or pavement increased by about 50 to 18,839 during 1959.

Provincial Highways: King's Highways, the Province's major rural routes, carry more than 40 per cent of all motor vehicle traffic, including nearly all through traffic and heavy trucks. Secondary Highways, located primarily in the northern areas, provide access to mining and forest-product communities. Capital construction costs for all Provincial highways over the next 20 years are estimated at \$1.5 billion. Included in this program will be an increase in multi-lane highway mileage from approximately 400 to 1,730, with some 1,300 miles of controlled-access freeways.

CONSTRUCTION PROGRAM¹ FOR MAJOR HIGHWAYS IN ONTARIO, 1949-50 AND 1959-60 TO 1961-62

	1949-1950 (Actual)	1959-1960 (Actual)	1960-1961 (Estimate)	1961-1962 (Estimate)
	\$	\$	\$000's	\$000's
Highway 401.....	5,088,769	28,051,894	20,008	30,500
Trans-Canada Highway.	11,433,100	17,835,059	17,526	7,700
Queen Elizabeth Way...	—	2,550,911	12,426	7,900
Other Roads.....	25,570,902	47,943,388	42,707	48,200
Total.....	42,092,771	96,381,252	92,667	94,300

¹Value of construction contracts awarded, material costs, supervision and sundries.

With the completion of 165 miles of road between the Agawa River and Marathon in September, 1960, the Trans-Canada Highway was opened to traffic right across the Province. Although all sections of the highway are not yet up to the required standards, the work will be completed before the agreement with the Federal Government expires at the end of 1963.

Highlights of the proposed construction programs for the five years 1960-61 to 1964-65, are as follows: The annual program will approximate \$100 million. Work will be vigorously pushed to bring existing highways up to modern standards. A number of new roads will be constructed, including the extension of Highway 11 west from Atikokan to Fort Frances, and the causeway across Rainy Lake. Several new international bridges are projected for various locations, including Queenston and Sault Ste. Marie. The trans-Provincial Highway 401 will be completed from Windsor to the Quebec boundary. Conversion of the Queen Elizabeth Way into an entirely controlled-access highway will be completed; this will include a new high-level bridge over the Welland Canal. In 1961-62, it is expected that 532 miles of grading and paving and 111 steel and concrete structures will be started.

Municipal Roads: The construction and maintenance of urban, township and county roads is subsidized by the Ontario Government. These subsidies range from 33½ to 50 per cent in the case of roads, and from 33½ to 80 per cent in the case of bridges. In certain instances—development roads in counties and roads in unincorporated townships in Northern Ontario—the Government pays 100 per cent of the cost of capital construction. In order to receive aid, municipalities must carry out work in accordance with Provincial administrative and technical standards.

Subsidies paid with respect to municipal road construction have increased sharply during the post-war era. Departmental capital expenditures (including roads where 100 per cent of the cost has been borne by the Department) have risen from \$8.4 million in the fiscal year 1950-51 to nearly \$46.0 million in 1959-60 and are estimated at \$54.2 million in 1960-61 and \$56.3 million in 1961-62.

Along with the King's Highways, county roads are the main arterials within the counties. It is expected that during the next 20 years nearly all the county roads and two-thirds of the bridges should be improved or replaced, at a capital cost of \$456 million. Township roads serve a widely dispersed population, allow access to recreation areas and facilitate the movement of farm produce, lumber and other products. Capital construction costs for the next 20 years are estimated at \$703 million.

With the rapid growth of urban centres and increased motor vehicle travel, urban roads now carry about 40 per cent of all Provincial motor traffic. An adequate 20-year program would involve capital construction costs totalling \$2.2 billion. Nearly two-thirds of this expenditure will be for high-volume arteries such as King's Highway extensions, expressways and arterial streets.

Motor Vehicle Registrations

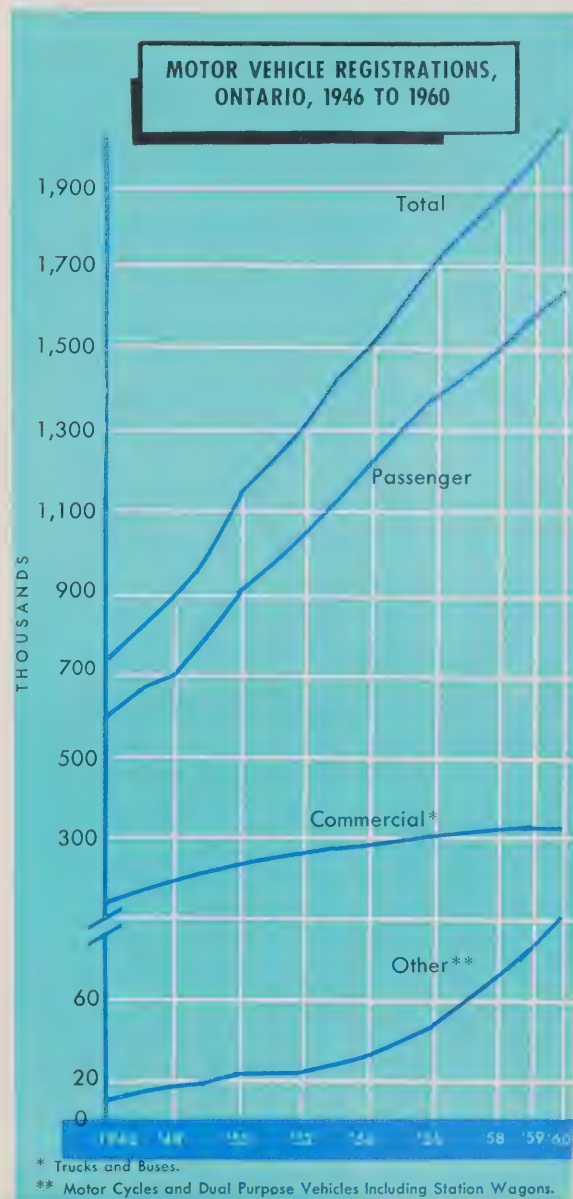
Ontario was the first province in Canada to require the registration of motor vehicles. Since the first year of registration in 1903, the number of motor vehicles in the Province has grown tremendously—from 178 to more than two million. Even since 1946 the number has nearly tripled, while during 1960 alone, there was an increase of about 89,000 or 4.5 per cent.

About 80 per cent of all the motor vehicles in Ontario are passenger cars. Trucks and buses make up the next largest group, nearly 16 per cent, followed by dual purpose vehicles, 4.5 per cent. This latter category has shown amazing growth since the end of World War II and is now 11 times what it was in 1951.

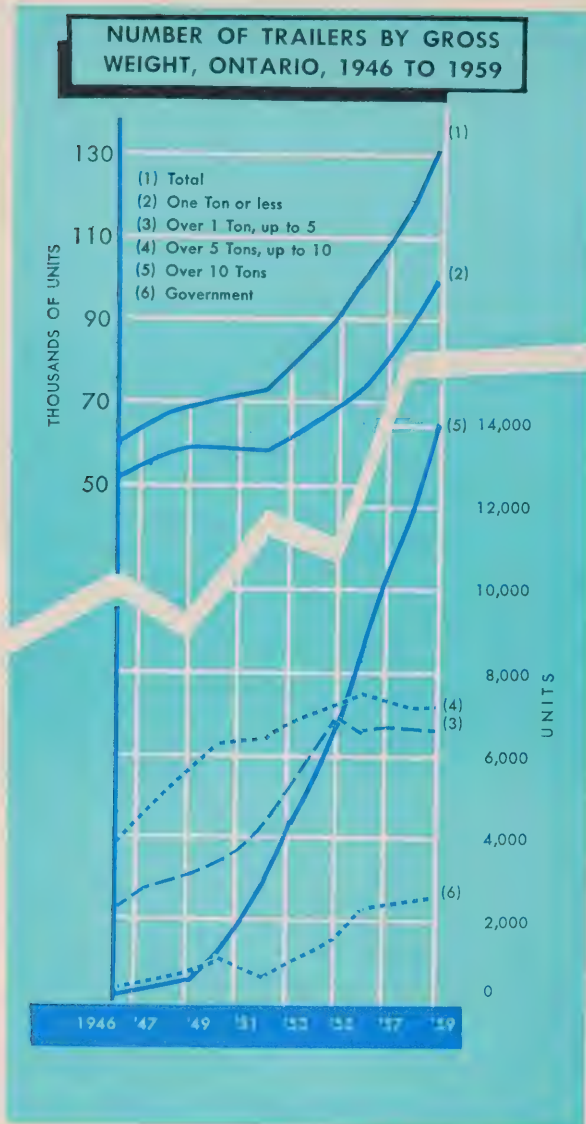
Ontario accounted for 41.5 per cent of all new motor vehicle sales in Canada in 1959—some 182,000 passenger cars valued at \$532 million and 26,500 trucks and buses

at nearly \$102 million. Included in this number were some 47,100 European-made passenger cars and 3,500 commercial vehicles, 41 per cent of all European-made vehicles sold in Canada that year.

Preliminary data for 1960 show that some 217,000 new motor vehicles, valued at \$648.9 million, were purchased in Ontario. Sales of passenger cars were some five per cent higher than in 1959 (191,415 valued at \$554.0 million) while sales of commercial vehicles were about four per cent lower (25,528 valued at \$94.3 million). Approx-



NUMBER OF TRAILERS BY GROSS WEIGHT, ONTARIO, 1946 TO 1959



mately 50,000 British and European passenger cars, worth \$99.4 million, were sold in the Province. This is nearly six per cent higher than in the previous year.

The number of trailers of all kinds registered in Ontario in 1960 (136,511) was about three times the number recorded in 1939 and more than twice the number registered soon after the end of World War II. During 1960 registrations increased by three per cent.

While both immediately before and after World War II trailers of one ton or less gross weight¹ made up nearly 90 per cent of total trailer registrations, by 1959 they

¹Gross weight equals the weight of the trailer plus its carrying capacity.

comprised only 77 per cent. The greatest proportional increase during this period occurred in the over-10-tons gross weight category. From 23 units in 1939, this group grew during the war years to 300 and by the end of 1959 had reached 13,288. During this latter year an increase of nearly 11 per cent was recorded. The size group "more than 14 tons and up to 15 tons" comprised 11,565 units or 87 per cent of the over-10-tons category.

MOTOR VEHICLE REGISTRATIONS IN ONTARIO BY TYPE.
SELECTED YEARS 1939 TO 1960

	Total	Passenger	Commercial ¹	Dual Purpose ²	Motorcycle
1939	682,891	593,693	82,206	1,893	5,099
1946	711,106	585,604	117,217	1,303	6,982
1951	1,205,098	958,082	225,271	8,275	13,470
1955	1,617,853	1,292,133	287,942	25,457	12,321
1956	1,710,240	1,365,874	297,329	35,385	11,652
1957	1,793,499	1,431,438	304,568	45,971	11,522
1958	1,868,922	1,492,039	308,317	58,418	10,148
1959	1,973,737	1,573,365	316,272	74,014	10,086
1960 ³	2,062,470	1,640,338	320,185	92,586	9,361

Per Cent Change

1960/1959 4.5 4.3 1.2 25.1 -7.2

¹Trucks and buses.

²Includes station wagons.

³Preliminary.

Motor Transport

On the basis of the most recent survey of motor transport traffic carried out in Ontario during 1958, it was estimated that an average of 280,300 trucks was registered in the Province that year. Of this number, 127,700 or nearly 46 per cent were private trucks operating predominantly in urban areas; 26 per cent were private intercity vehicles (owned and operated by firms or individuals on intercity routes to transport their own goods); 22 per cent were private farm trucks used primarily to transport farm products and supplies; and six per cent were for-hire carriers (operated for compensation or gain).

All these vehicles, in their operations both inside and beyond the Province, transported a total of 173.2 million tons of goods, of which 64.2 million tons, or about 30 per cent, were carried by for-hire trucks. A revenue of \$268.2 million was received for this service.

Although there are relatively few for-hire vehicles, in 1958 they accounted for more than 60 per cent of the total net ton miles performed during the year. This is partly because of their comparatively high average yearly mileage—31,100 compared with 8,700 for all trucks—and partly because of their heavier average load—10.8 tons compared with 5.1 tons for all trucks. Almost three-quarters of for-hire carriers have a gross vehicle weight of over ten tons. Approximately one-third of the total net ton miles performed and one-quarter of the revenue earned by for-hire trucks was in traffic extending beyond the borders of the Province and much of this went either to or from Quebec.

Urban Transit Services

In 1959, the 24 class one¹ urban transit systems in Ontario carried approximately 438 million passengers², some six million fewer than in the previous year. Revenue also fell, by \$168,000, to \$54.1 million. Almost 191 million persons or 43.6 per cent of all passengers carried, travelled by motor bus, nearly 163 million by electric car, 45 million by trolley coach, 36 million by subway car and some four million by chartered vehicle.

The three largest urban transit systems—in Toronto, Ottawa and Hamilton—carried more than four-fifths of all passengers in the Province. The Toronto system carried

¹Those companies or individuals whose gross revenue from transit operations exceeds \$100,000.

²The number of initial fare excludes transfers.

more than 293 million passengers or approximately two-thirds of the total.

Preliminary data for 1960 indicate that although the number of passengers carried has declined—to some 424 million—revenue earned during the year has risen considerably, to \$56.9 million. Of the total number of passengers carried, 191 million or 45.1 per cent travelled by motor bus, almost 149 million by electric car, nearly 45 million by trolley coach, some 35 million by subway car and more than four million by chartered vehicle.

Air Services

Development of aviation in Canada was sparked by World War I. With the end of the war many pilots entered the field of civil aviation and pioneered air service into inaccessible parts of the country. World War II also



Courtesy—Trans-Canada Air Lines.

One of the DC-8 jetliners which was introduced on TCA's transcontinental flights in April, 1960, and on transatlantic flights in the following June.

generated a tremendous surge of interest in air transportation and a period of intensive training of personnel and construction of airdromes and airports began. Many war-time pilots again turned to commercial flying after the war.

By the end of 1959, there were 42 scheduled, 128 flying-training and 803 other non-scheduled and specialty commercial services operated by licensed Canadian air carriers. The non-scheduled services provide means of reaching areas otherwise inaccessible and act as feeders to the scheduled airlines. Specialty services include recreational flying, aerial photography and surveying, aerial pest control and aerial advertising.

During 1959 the number of planes operated by Canadian carriers averaged 1,059 — 211 by scheduled domestic, 822 by non-scheduled domestic and 26 by Atlantic and Pacific services. That year, the number of revenue miles flown by Canadian carriers everywhere and by foreign carriers in Canada reached 110.5 million, double the number flown in 1951. There were 5.3 million revenue passengers in 1959, some 16.5 per cent more than in 1958 and 2.8 times the number in 1951. The number of employees averaged 17,340, compared with 16,660 in 1958 and 8,107 in 1951, while salaries and wages rose to \$90.6 million from \$83.5 million in 1958 and \$27.4 million in 1951.

There are two major air lines in Canada—Trans-Canada Air Lines and Canadian Pacific Air Lines, Limited. These two provide the bulk of passenger and cargo air service both within Canada and entering or leaving the country.

TCA, a publicly owned company, was created in 1937 by the Federal Government to provide an all-Canadian transcontinental and international air service. It has grown steadily, and at the end of 1960 was operating a fleet of 99 aircraft over routes extending some 30,399 miles within North America and to the British Isles, continental Europe and the Caribbean, with 59 communities being served directly.

During 1960, the company introduced jet air service into Canada. Transcontinental jet service with DC-8s began on April 1, while a daily transatlantic flight was inaugurated June 1. A second daily transcontinental jet flight, including a stop at Winnipeg, was added later. The first of the turbine propeller Vanguards arrived last December. At the end of the year, TCA's fleet consisted of 7 DC-8s, 3 Vanguards, 49 Viscounts, 12 Super Constellations, 21 North Stars and 7 DC-3s.

TCA expects to retire all its piston-powered aircraft from service this year, when delivery of its DC-8s and Vanguards, 10 and 20 respectively, has been completed. The company will then be the world's first major airline to be all turbine-powered. Transcontinental Vanguard service will begin in 1961. This aircraft will, in general, be used on medium range routes. DC-8s will fly the long

range services, while the Viscounts will operate on most of the short runs. No major route extensions are planned for this year.

CPA, a subsidiary of the Canadian Pacific Railway, was first formed during the late 1930's and early 1940's by the amalgamation of numerous small domestic companies operating in many parts of Canada. It now provides domestic service in British Columbia, Alberta and the Yukon. In May, 1959, it was permitted to establish a transcontinental service (Vancouver, Winnipeg, Toronto, Montreal) on a one flight a day, each way, basis. In March, 1960, regular flights between Montreal and Rome were inaugurated. This route may ultimately be extended to Bangkok and other points in Asia. The company was already operating regular flights between Montreal, Toronto, Mexico City, Lima, Santiago and Buenos Aires; Toronto, Montreal, the Azores, Lisbon and Madrid; and from Vancouver to many points including Honolulu, Auckland, Sydney, Tokyo, Hong Kong, Mexico City and Amsterdam. At the end of 1960, a fleet of 27 aircraft was in service. The first of the four DC-8 jetliners on order was delivered late in February, 1961, and two others are expected before mid-year.

Beginning in March, 1960, the British Overseas Airways Corporation began regular flights between Toronto and the United Kingdom. There are now two foreign airlines coming into Malton Airport, the other being American Airlines, Incorporated. This latter line operates between Toronto and New York and Newark, either direct or via Buffalo. Another American company, Eastern Air Lines Incorporated, provides service between Ottawa, Montreal and New York, either direct or by way of Burlington, Vermont. Several smaller companies provide non-scheduled, specialty and charter flight service.

A \$30 million expansion program is being carried out at the Toronto International Airport (Malton). The first building to be constructed is No. 1 Aeroquay, a passenger-handling building which will stand in mid-landing field. It will be linked to the airfield perimeter by underground tunnels. Other buildings planned include an administration building, power plant and control tower.

At the end of 1959, there were 243 landing areas in Ontario, of which 152 were licensed (65 land and 87 water); 19 were military bases and 72 were unlicensed (37 land and 35 water). Many of these are in the northern part of the Province.

The Provincial Air Service, with headquarters at Sault Ste. Marie, is under the administration of the Ontario Department of Lands and Forests. In the year ending March 31, 1960, it operated a fleet of 44 aircraft from 28 bases, eleven of which provided year-round service. In addition, five helicopters were leased for use in special situations. Most flights were made in connection with fire detection and suppression, the care of fish and wild life and timber management.

Pipelines

Natural Gas: Possibly the first natural gas pipelines to be built in this Province were constructed before the end of the 19th Century to export gas from Essex County in southwestern Ontario to Buffalo and Toledo. By 1907, however, pressure in the Ontario gas fields had diminished and exports ceased. Since that time, many miles of gathering, transmission and distribution pipelines have been laid in the Province. Probably of greatest significance was the building of the trans-Canada pipeline which now brings natural gas from Alberta to Eastern Canada. This 2,294-mile natural gas line is the longest in the world. Begun on the Alberta-Saskatchewan border in July, 1956, it had reached Kenora by the end of 1957 and Port Arthur by the following February. The section between Toronto and Montreal, including laterals to Lindsay and Ottawa, was completed late in 1957 and placed in service with an interim supply of imported United States gas. The final 852 miles, between Port Arthur and Toronto, were completed in October, 1958 and western gas became available to Southern Ontario. All but the 675 miles of pipeline between the Ontario-Manitoba border and Kapuskasing was built by Trans-Canada Pipe Lines Limited. The difficult northern section was financed by the Canadian Government through the Northern Ontario Pipe Line Crown Corporation.

Prior to the building of the trans-Canada pipeline, the only sources of natural gas for Ontario users were the producing fields in the southwestern part of the Province and imports from the United States. In order to build up a market for the Alberta product when it became available, Ontario residents were encouraged to increase their use of this form of energy and imports from the United States were increased as demand rose—rising from some 6.0 billion cubic feet in 1954 to a record of 32.4 billion cubic feet in 1958. In 1959, the first full year following the completion of the trans-Canada pipeline, imports from the United States fell to 11.3 billion cubic feet while imports from Alberta soared to some 60.0 billion cubic feet, from 10.2 billion in 1958.

A record amount of natural gas pipeline, some 4,200 miles, was laid during 1958, bringing to 12,771 the total pipeline mileage in Ontario at the end of that year. During 1959 only about 600 miles of pipe were laid (bringing the total to 13,368), emphasis being placed rather on the consolidation of existing facilities and the extension of existing distribution systems.

Four major companies and their subsidiaries distribute the bulk of natural gas used in Ontario. These are The Consumers' Gas Company, Lakeland Natural Gas Limited, Northern Ontario Natural Gas Company Limited and Union Gas Company of Canada Limited.

The Consumers' Gas Company and its subsidiaries distribute natural gas to municipalities in various parts of Southern Ontario—around the southern tip of Georgian

Bay, in the Niagara Peninsula, in and around Toronto and in the eastern section of the Province. In addition, propane gas is provided in Pembroke, Renfrew, Hawkesbury, Brighton and Whitby. This company is also interested in serving areas which are nearby but outside the Province, particularly in Quebec and New York State. At the end of September, 1959, the company was serving some 235,000 customers, 2,600 of whom were industrial establishments.

Distribution facilities along the trans-Canada pipeline route from Port Hope to Cornwall are constructed and operated by Lakeland Natural Gas Limited. At the end of September, 1959, after its first year of operation, 2,222 customers were being served compared with 26 a year earlier. Franchises are held in some 50 communities. During the summer of 1959, about 23 miles of gas mains were constructed in Haldimand and Cramahe townships, north of Colborne, to a new bright-leaf tobacco growing area. A lateral line was also extended to Winchester to serve a large producer of dairy products. This lateral was made large enough to handle the total natural gas needs of the community.

The affiliated companies of Northern Ontario Natural Gas Company Limited and Twin City Gas Company Limited supply natural gas to 32 communities on the route of the trans-Canada pipeline from the Ontario-Manitoba border to Orillia. During 1959, approximately 53 miles of gas main were built and some 7,750 service lines installed. At the end of that year, more than 12,500 customers were being served. Among the communities served by Northern Ontario Natural Gas are Orillia, North Bay, Sudbury, Kirkland Lake, Timmins and Hearst. The northwestern part of the area, including the centres of Kenora, Dryden, Fort William, Port Arthur, Nipigon, Red Rock and Geraldton, is served by Twin City.

In southwestern Ontario, natural gas is supplied by the Union Gas Company of Canada Limited, its wholly owned subsidiary, Ontario Natural Gas Storage and Pipelines Limited, and its partially owned subsidiary, United Fuel Investments Limited, a holding company owning all the outstanding shares of United Gas Limited. This latter company distributes natural gas in Acton, Burlington, Dundas, Georgetown, Hamilton, Milton, Oakville and their adjacent areas.

In 1957, Union Gas built a pipeline from its Dawn Township storage pool in Lambton County to Sheridan, near Oakville, a distance of about 142 miles. This line, together with branch lines to various markets along the route, plus underground gas storage facilities, including the compressor station and gas held in storage in Lambton County, was purchased by Ontario Natural. This company buys natural gas from the United States and Alberta, stores or transmits it, and sells it on a wholesale basis to Union Gas, United Gas and the City of Kitchener. In addition, for a service charge, Ontario Natural stores,

Major Gas And Oil Pipelines Serving Ontario



transmits and exchanges gas for other companies, notably Consumers' Gas, accepting surpluses for storage during the off-peak summer season and returning them as required.

Among the centres served by Union Gas are Brantford, Chatham, Goderich, Guelph, London, Sarnia, Stratford, Waterloo, Windsor and Woodstock. Long term plans are being made to serve the area between Waterloo and Owen Sound.

Oil: The longest crude oil pipeline in the world, operated by the Interprovincial Pipe Line Company, connects the producing fields of Alberta, Saskatchewan and Manitoba to refineries in the Prairies, the north central United States and Ontario. In 1959, this line, which is some 1,930 miles in length (not including parallel lines), had an overall throughput of 337,000 barrels per day. About three-fifths of this total was delivered to Ontario. Virtually all the crude oil used in Ontario refineries comes from the Canadian West.

At the end of 1959, some 7,800 miles of oil pipeline were serving Canadian interests. This total included both crude and product lines, lines which run partly through

the United States and major gathering lines. Approximately 1,010 miles of pipe were located in Ontario.

The building of pipelines to carry oil products during the past decade has allowed refineries in the Montreal, Toronto and Sarnia areas to move their products all year round. Prior to this, refineries had used the Great Lakes-St. Lawrence waterway, which was closed during the winter months thus necessitating the construction of large marine storage terminals. In 1959, 45.7 million barrels of refinery products were delivered by pipeline in Ontario, 2.4 million barrels more than in 1958. Refined gasoline and distillate fuels accounted for the bulk of this total.

There are three oil product pipelines in Ontario. One, the Sarnia Products Pipe Line, is a division of Imperial Oil Limited. It carries products from the Sarnia refineries to London, Hamilton and Toronto by means of a 242-mile pipeline. The Sun-Canadian Pipeline Company also operates a line (211 miles) from Sarnia to Toronto. The Trans-Northern Pipeline Company connects numerous centres such as Ottawa, Kingston, Belleville, Toronto and Hamilton to refineries in Montreal and Clarkson by means of some 440 miles of pipeline, 390 of which are in Ontario.

Communications

Most of the people of Ontario are within reach of a variety of communication facilities—telegraph, telephone, radio, television, press and post. Continuing efforts are being made to improve the services provided and to extend them into the most remote areas of the Province.

Telegraph

The first telegraph service in Ontario was opened in December, 1846, between Toronto and Hamilton. The line was completed as far as Queenston during the following month and was later extended to Buffalo. A second line, connecting Toronto with Montreal, began to operate in 1847. The establishment of a number of telegraph companies during the next few years resulted in a strong move for consolidation which was brought to fruition in 1881 with the leasing of all conflicting interests to the Great North Western Telegraph Company. Economies in operation were derived from this union. Within a few years, however, competition was reinstituted with the establishment of lines by the Canadian Pacific Railway Company.

The main companies operating in Ontario today are the Canadian National Telegraphs (CNR), which absorbed the Great North Western, the Canadian Pacific Communications (CPR) and the Ontario Northland Communications (ONR). The Commercial Cable Company and

Western Union Telegraph Company have lines connecting with the CPC and CNT, respectively.

Telegraph companies provide a variety of services. A Telex network, for example, is jointly owned by Canadian National Telegraphs and Canadian Pacific Communications. This service permits instantaneous two-way written conversation. Forty-three Ontario centres as widely separated as Fort William, Sudbury, Windsor, Toronto and Ottawa are on the network and all are directly connected with other cities and towns throughout Canada, with cities in the United States and, through the central exchange operator in Montreal, with foreign points overseas. In 1958, nation-wide telephone service connecting all airports was established by CNT and CPC for the Federal Department of Transport. This network provides what is known as Air Movement Information Service.

In November 1960, a high-speed public facsimile service was inaugurated by CNT and CPC between Toronto and Montreal. Known as Wirefax, the system is the first of its kind in Canada and instantly reproduces an exact copy of typed or handwritten letters, financial statements, drawings, sketches, etc., between the two cities.

A coast-to-coast facsimile network for the transmission of weather data is maintained by CNT for the Federal Department of Transport. This network, called Weatherfax, is a fully automatic system and is the only one of its kind in the world. Ontario is part of this network through

the Malton weather forecasting office of the Department of Transport. CNT has also done considerable work in the field of Integrated Data Processing—an IDP system with especially designed equipment and circuits has been installed for Ontario Hydro. In addition, CNT provides the stock ticker service for the Toronto Stock Exchange and is active in the field of financial communications for market transactions.

The provision of radio-broadcasting and sound facilities for both CBC and private commercial stations is another field in which the telegraph companies figure importantly. CNT-CPC between them hold contracts for the provision of radio-broadcasting circuits for the entire CBC network. In Ontario, CNT provides all the sound requirements for the CBC and also for many private radio stations.

In addition, a microwave network in southwestern Ontario is jointly owned by CNT and CPC. This network, which runs from Toronto through Hamilton, Kitchener and London to Windsor, with a branch to Wingham, is at present used for television purposes only. Provision has been made, however, for expansion for general communications as the need arises. The television circuits are leased to the CBC and others, for program purposes.

External telecommunication services between Canada and any other place and between Newfoundland and any other part of Canada—by cable, radiotelegraph or radio-telephone—are maintained and operated by the Canadian Overseas Telecommunication Corporation, a Federal crown agency established in 1950. In order to meet the continuously expanding demand for overseas telephone and telegraph service, the number of submarine cable circuits available to Canada has had to be increased. Late in 1953, the Corporation, on behalf of Canada, entered into an agreement with American interests for the construction and maintenance of a transatlantic telephone cable between the United Kingdom, Canada and the United States. The system was placed in service in September, 1956.

A second transatlantic cable will be laid by 1961 and will be financed by the United Kingdom and Canadian Governments. This will form part of a round-the-world Commonwealth cable system. The second stage, from Vancouver to Australia and New Zealand, is scheduled for completion in 1964. The two sections will be connected by landline across Canada. To complete the system, cables are planned from Australia to Britain via principal Commonwealth countries on the Indian Ocean and in Africa. Canada will own the section from Vancouver to a point about 200 miles beyond Hawaii and have a substantial share in ownership of the remainder. Plans have also been made for the laying of a submarine telephone cable between Newfoundland and Greenland and Iceland by 1962. It will eventually be extended to the United Kingdom. Cables also connect Canada with stations in

Bermuda, Ireland, St. Pierre and Miquelon and the United States.

Transpacific radiotelephone and radiotelegraph services with Australia and New Zealand were inaugurated in November, 1956. Direct radiotelegraph service to Japan commenced in June, 1957.

Late in 1956, the Corporation initiated the International Telex Service, an overseas teleprinter switching system by means of which the user can teletype directly to a correspondent. This service, which is available across Canada by means of the CNT-CPC Telex network, was extended to Japan, Australia and New Zealand during 1958.

More than one-third of the 14.4 million telegrams originating in Canada in 1959 were sent from Ontario's 1,888 telegraph offices. Just under one-third of all wire mileage was located in this Province.

Telephone

The first successful long-distance telephone call in the world was made in August, 1876 from Brantford to Paris, Ontario. The following year, telephone service was introduced on a commercial basis. In 1880 The Bell Telephone Company of Canada was established by Act of Parliament and by the end of the year had exchanges or agencies in more than 32 centres across Canada. Because of the vast area to be covered and the state of the industry at that time, separate companies were operated in British Columbia from the first. In the late 1880's The Bell Telephone Company disposed of its plant in the Maritimes and in 1908 and 1909 sold its western installations to the respective provincial governments. Only in Ontario and Quebec did the company maintain and develop its holdings.

Automation on a large scale began in the 1920's with the introduction of dial telephones and new equipment which would permit the automatic completion of local calls. By the end of 1958, about 80 per cent of the telephones both in Ontario and in Canada were operated automatically. An automatic long-distance switching centre was installed for the first time in Toronto in 1955. A number of other communities with heavy calling volumes have since been similarly equipped. Automatic accounting machines used in conjunction with basic switching equipment made direct long-distance dialing practical and in the summer of 1956, for the first time in Canada, telephone customers in Windsor were enabled to put through some of their own long-distance calls. Direct distance dialing was introduced into Toronto and Guelph in May, 1958, and into Cornwall, Fort Erie, London, St. Thomas and Stratford during the summer of 1960. (Montreal and Valleyfield, in Quebec, received it in the spring of 1960.) Fort Erie and Stratford are scheduled to receive it in December. A long-range international plan developed by Canadian and American telephone com-

panies, provides for practically every telephone-user in North America to be able eventually to dial directly to almost every other telephone on the Continent.

Standard long-distance service on a national scale has been provided by the Trans-Canada Telephone System since 1932. This system is an association of the eight major Canadian telephone systems—British Columbia Telephone Company, Alberta Government Telephones, Saskatchewan Government Telephones, Manitoba Telephone System, The Bell Telephone Company of Canada, The New Brunswick Telephone Company, Limited, Maritime Telegraph and Telephone Company, Limited, and the Avalon Telephone Company, Limited, of Newfoundland (joined in 1957). Each member owns and operates that part of the system which is within its own territory.

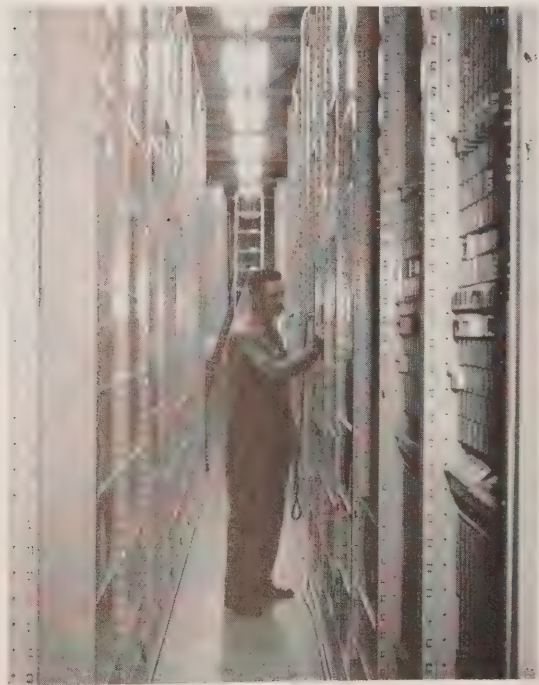
Several Canadian companies have developed what is called "Extended Area Service" in many of the communities they serve. This plan eliminates long-distance charges between larger centres and their suburbs, or between two or more places with a close community of interest.

The coast-to-coast microwave network which came into operation on July 1, 1958, was also built by members of the Trans-Canada Telephone System. This network is designed not only to transmit television programs across Canada but to provide hundreds of long-distance tele-

phone circuits. The first link in the chain, the Montreal-Ottawa-Toronto section, was placed in service during the first half of 1953. The network was extended each year and now reaches from Halifax to Victoria. Branches from the main system were also built, bringing network television to other areas such as Kingston, Peterborough, Barrie, North Bay, Sudbury, Sault Ste. Marie and Timmins. The new radio relay system connecting Montreal and North Bay went into service during 1959, while the system linking Toronto, London and Windsor was brought close to completion. By-pass routes around the larger cities were included in this network expansion, in order to provide for greater reliability of service and also for defence purposes. The capacity of the microwave system between Sudbury and Sault Ste. Marie was increased and network television was brought to Kenora. Associated links have also been built between Buffalo and Toronto to provide a connection with United States television networks. The first of these was completed in 1952. Two years later an additional channel was installed to carry Canadian television programs to the United States. In 1957, telephone channels were added. Another channel for television purposes was incorporated during 1959. A link between Montreal and New York, built in co-operation with the New York Telephone Company, has gone into operation. An additional cable system is now being built by stages from Montreal to Toronto. It is designed primarily to carry calls between the towns and cities along the way.

Another example of the co-operation of members of the Trans-Canada Telephone System is the building of the longest teletypewriter network in the world. This service, supplied to a major Canadian industry, extends from Halifax to Vancouver and into northern British Columbia.

Telephone service within Ontario is mainly provided by The Bell Telephone Company of Canada, which also provides part of the service in Quebec, Labrador and, since 1959, in the Northwest Territories, namely in Frobisher Bay on Baffin Island. Over 90 per cent of the telephones in Ontario—more than 2.1 million at the end of 1960—are operated by this company. While the bulk of the telephones are located in the southern part of the Province, the rapid growth which is taking place in the northern sections of both Ontario and Quebec has made it necessary to expand and improve communication facilities in those areas. The company's expansion program includes the extension of telephone service both by landline and radio. The more isolated lumber camps and settlements are, or will be served by means of radio links which connect with the trans-Canada microwave network. In the seven years 1954 to 1960, the Bell Company either created or assumed operation of 57 telephone exchanges in Northern Ontario. Many of these communities had previously been without telephone service or had had long-distance connections only.



Courtesy—The Bell Telephone Company of Canada.

A Bell Telephone central office man checks the common control equipment, the "brains" of the new crossbar dial switching equipment. This equipment can "remember" a dialed number and work out a talking path for the call.

The use of special services and equipment has increased considerably during recent years. With the aid of facsimile equipment, for example, the telephone network can carry not only television programs but printed messages, news photographs, diagrams and blueprints. Telemetering equipment can be used to control and record the flow of oil through a pipeline or to control the switching of power line networks for a public utility. Emergency warnings for fire fighting and civil defence also can be relayed over the telephone network. In addition, several communication systems have been developed to meet the specialized needs of government for administrative and defence purposes. In 1959, a transmission network was provided in Ottawa for Canada's first co-ordinated system for the control of traffic lights. The system is designed to facilitate the handling of rush hour conditions and the rerouting of traffic in an emergency. Another project carried out by the Bell Company was the installation of distribution systems for the "pay as you see" television service introduced early last year in Etobicoke, a suburb of Toronto. In addition, mobile microwave units, equipped to transmit television programs from remote locations, are maintained

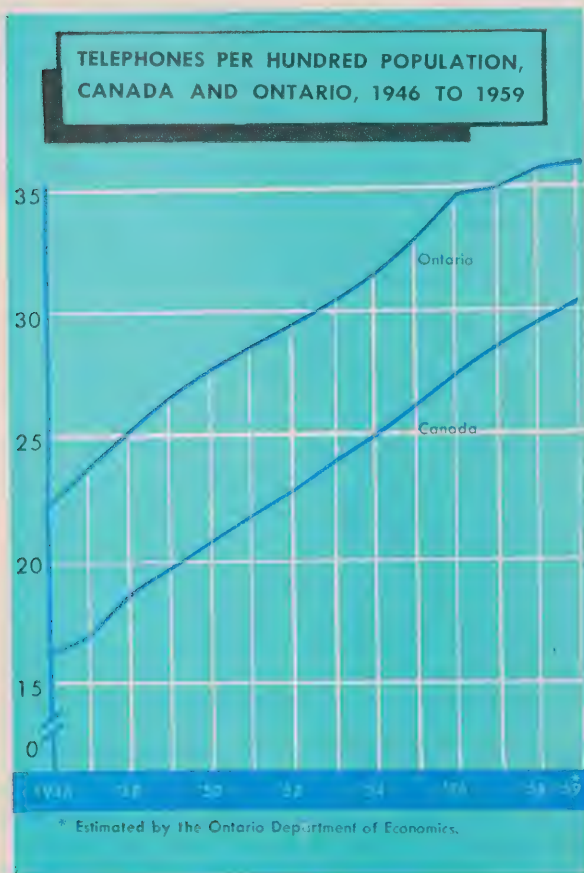
in Ottawa, Montreal and Toronto. New business services are also being planned.

An extensive mobile telephone network is in operation in Ontario, extending from Windsor to the Quebec border and north to Nipigon. In 1958, this service was made available to Fort William and Port Arthur. These mobile networks are used for a variety of purposes. The Ontario Department of Highways, for example, co-ordinates and directs its maintenance forces in the most heavily populated areas through the regular mobile network. Several self-contained mobile systems have also been installed—mostly for pulp and paper companies, and steel and construction firms. These private systems are limited to calling between units furnished to the individual customer and are not connected to the main telephone network. In 1960, there were more than 430 mobile telephones operated by The Bell Telephone Company in Ontario.

During 1960, \$208 million was spent by The Bell Telephone Company on the buildings and other equipment necessary to improve and extend service throughout its territory. In the six years 1955 to 1960, inclusive, such construction expenditures have amounted to over one billion dollars. The company expects to spend \$170 million on construction in Metropolitan Toronto alone during the five-year period 1959 to 1963. By that time, more than one million telephones are expected in this area. Forty Ontario exchanges, involving some 68,000 telephones were converted from manual to dial service during 1960.

In addition to The Bell Telephone Company of Canada, numerous independent systems throughout the Province provide telephone service to the people of Ontario—on farms, in mining and lumber camps, in tourist resorts, and in some northern urban centres. At the end of 1959, the latest year for which data are available, there were 306¹ of these systems operating some 179,000 telephones.

The largest of the independent systems is the Northern Telephone Company Limited which operates about 35,400 telephones in Northern Ontario and also has customers in northern Quebec. Ontario customers live mainly in the northeastern region along the Canadian National Railways line between Nakina, Porquis Junction and the Quebec border and along the Ontario Northland line, south from Porquis Junction to Latchford. Atikokan and the Steep Rock Iron Mines in Northwestern Ontario are also served. In addition, Northern Telephone operates a public commercial radiotelephone service to lumber camps, mines and resorts in the latter region. This service covers an area extending east from Kenora to Sioux Lookout and north from Sioux Narrows to Red Lake, connecting with the general telephone network through Kenora and Dryden. The company is carrying out an extensive



¹Does not include systems owned by incorporated companies other than telephone companies or those owned by Federal or Provincial Government departments or commissions.

development program to augment and improve its facilities. The Algoma Central Telephone Company, a subsidiary of Northern Telephone, provides local and long-distance service to the area between Sault Ste. Marie and Hearst, including the Helen iron mine at Michipicoten, Wawa, Hawk Junction and Searchmount.

Both long-distance and local service is provided by the Provincially owned Ontario Northland Communications over an area extending from North Bay to Moosonee and from Flint Lake into northwestern Quebec. Considerable expansion in service is planned to meet the ever-growing demand for increased communications facilities.

The telephone systems of Fort William and Port Arthur are municipally owned. In 1959 they operated 18,820 and 16,331 telephones, respectively; long-distance service in both cities is provided by The Bell Telephone Company. Most of the other independent systems are quite small, ranging in size from under ten telephones to 5,000, the average being about 300. The number of very small systems is gradually declining.

Some of the more thinly populated and remote areas of the Province are still without telephone communications. It is felt, however, that modern electronics will be of help in bringing service to the people in such areas. Already radio links are being used in a number of districts where landlines are impractical and their use will, in time, be extended. In addition, the joint use of poles owned by The Hydro-Electric Power Commission of Ontario is practised in certain areas to reduce the cost of providing service.

The Ontario Telephone Service Commission is currently studying this problem of "unserved areas", along with numerous others involved in telephone communication. The Commission, originally known as the Ontario Telephone Authority, was created in 1954 for the purpose of improving telephone service in the Province and particularly in the rural areas. At the end of World War II, partly because of the lack of revenue during the 1930's and the difficulty of obtaining maintenance equipment and supplies during the war, many systems were using obsolete and worn-out equipment. As a result, telephone service in some parts of the Province was poor. Many rural systems, indeed, had to catch up with technical improvements and changes in operating techniques which had developed over a period of about 30 years. In many cases, because of low rates and insufficient allowance for depreciation, no funds were available for reconstruction.

The Commission provides staff to help the independent systems with engineering, accounting and other technical problems pertaining to telephone communications. It must, in addition, approve or reject any revisions in rate schedules, borrowing, capital expenditures, sales and mergers, changes in by-laws and long-distance telephone agreements. Technical liaison with The Bell Telephone Company of Canada is maintained throughout the con-

version of any system to a dial exchange so that all conversions will be compatible with Direct Distance Dialing. In the interests of more efficient telephone service, some small and uneconomic systems have been encouraged to sell or merge with larger systems.

It is estimated that in 1960, 91 per cent of all households in Ontario had a telephone, while in Canada 83 per cent were so equipped.

Sound and Television Broadcasting

Radiotelegraphy, the earliest form of radio communication in Canada, was first established in 1901 between Chateau Bay, Quebec, on the north shore of Belle Isle Straits, and Belle Isle, Newfoundland. The first transatlantic radio message from Canada was transmitted in 1903 from Glace Bay, Nova Scotia, to Ireland.

Sound broadcasting (radiotelephony) began in Canada in 1918 when a privately owned company in Montreal was authorized to transmit programs on an experimental basis. By 1922 regulations were promulgated which permitted the establishment of broadcasting stations and broadcasting was authorized on a regular basis. In the year ending March 31, 1923, 52 broadcasting stations were in operation.

Dominion jurisdiction over radio communication was established in 1932 with a ruling of the judicial committee of the Imperial Privy Council. That same year the Canadian Radio Broadcasting Commission was created by the Federal Government and given authority to control and regulate broadcasting in Canada. By November 1, 1933, the Commission was authorized to operate CRCV Vancouver, CRCO Ottawa, CRCT Toronto, CRCS Chicoutimi and CRCM Montreal.

With the establishment, in 1936, of the Canadian Broadcasting Corporation in place of the Commission, broadcasting in Canada entered a new phase in its development. While the Canadian Broadcasting Act which created the Corporation gave to it much wider powers, in some respects, than the Commission had enjoyed, it also returned the technical aspects of broadcasting to what is now the Department of Transport.

The Corporation was made responsible for the establishment and operation of networks and for the character of all programs broadcast in Canada. In addition, applications for authority to establish new broadcasting stations or to make changes in existing stations, which were filed with the Department of Transport and found by that Department to be reasonably complete and technically acceptable, were referred to the Board of Governors of the Corporation for its recommendations to the Minister of Transport. These applications were then considered by the Board at a public hearing. The Canadian Broadcasting Act provided that a licence for a new broadcasting station

could not be issued without approval by the Governor in Council.

During 1958, the Government established a Board of Broadcast Governors and abolished the Board of Governors of the Canadian Broadcasting Corporation. The Board of Broadcast Governors regulates the establishment and operation of networks of both sound and television broadcasting stations and the program activities of both public and privately owned stations. Its aim is to provide a national broadcasting service which is basically Canadian in content and character. The Minister of Transport is still the licensing authority and is responsible for the technical aspects of broadcasting stations, but applications for broadcasting station licences or for any change in existing broadcasting regulations are referred to the Board for its recommendations.

The Board has already held a number of public hearings on applications for the establishment of new sound and television broadcasting stations and for changes in existing stations. During the fiscal year ending March 31, 1960, new sound broadcasting stations began to operate at Brampton, Cornwall, Fort William, Kitchener, Midland, Parry Sound and Peterborough. In addition, authority was granted for the establishment of a new sound broadcasting station at Hamilton. During the same period, two new television broadcasting stations commenced operation, one at Cornwall and one at Kenora. To date in 1961, two new television stations have begun to broadcast—one in Ottawa and the other in Toronto.

Authority for increases in power for sound broadcasting stations was implemented at Leamington, London, Oshawa, St. Catharines, Sudbury, Timmins and Toronto during the fiscal year 1959-60. In addition, sound broadcasting stations at Barrie, Brockville, Guelph, North Bay and Welland were authorized to increase their power. Authority for increases in power was also granted to television broadcasting stations at Kingston and Port Arthur.

Four networks of sound broadcasting stations are currently being operated by the Canadian Broadcasting Corporation. Three of these link standard (amplitude modulation) broadcasting stations—the Trans-Canada and Dominion networks which serve English-speaking audiences across the country and the French-language network which extends from Moncton, New Brunswick, to Edmonton, Alberta. These networks are made up of both privately owned and CBC stations. The fourth is a frequency modulation network which offers bilingual programming and links the Canadian Broadcasting Corporation's existing FM stations in Toronto, Montreal and Ottawa. This latter network began operating in the spring of 1960. Later that year the CBC announced its intention of setting up a radio network in the Yukon Territory. A network of privately owned stations is currently being planned.

ESTIMATED HOUSEHOLDS WITH RADIOS AND TELEVISION RECEIVERS IN CANADA AND ONTARIO, 1959 AND 1960

		1959		1960	
		Canada	Ontario	Canada	Ontario
Total Households	(000's)	4,303	1,528	4,404	1,571
	%	(100.0)	(100.0)	(100.0)	(100.0)
At Least One Radio	(000's)	4,134	1,460	4,236	1,510
	%	(96.1)	(95.5)	(96.2)	(96.1)
At Least One TV Receiver	(000's)	3,206	1,300	3,550	1,402
	%	(74.5)	(85.1)	(80.6)	(89.2)

At the beginning of 1961 there were 69 standard and 17 frequency modulation broadcasting stations in Ontario, including four AM and two FM which are owned and operated by the Canadian Broadcasting Corporation in Toronto, Windsor and Ottawa. About 50 per cent of the stations operate with a power of 1,000 watts or less and about 21 per cent with a power of 5,000 watts. Four stations, three in Toronto and one in Windsor, operate with a power of 50,000 watts. Two of these are privately owned. There are four French-language stations in Ontario, one each in Cornwall, Ottawa, Sudbury and Timmins.

While the residents of many Ontario centres receive programs from more than one radio station, those in Toronto have a choice of programs from six AM and three FM stations. In addition, certain parts of Metropolitan Toronto receive broadcasts from nearby communities, e.g., Oakville, Hamilton and Buffalo.

It is estimated that in 1960, 96 per cent of all households, both in Ontario and Canada, possessed at least one radio. In Ontario, 60 per cent of the homes with radios had only one, 26 per cent had two, while 14 per cent had three or more.

Television broadcasting, which is also under the jurisdiction of the Minister of Transport and the Board of Broadcast Governors, began on a regular basis in Canada in September, 1952 from two CBC stations, one in Toronto and one in Montreal. The first privately owned television station—at Sudbury, Ontario—began scheduled broadcasting in October, 1953.

Since its inception nearly nine years ago, television broadcasting has grown tremendously. Now 23 stations in widely separated areas of the Province provide the people of Ontario with news, drama, music and, in general, information and entertainment. Both live and filmed programs are shown. The CBC operates two networks in Canada—one English-language and one French-language. The English network of 46 stations provides television coverage from coast to coast; the French network extends from Moncton, New Brunswick, to Sturgeon Falls, Ontario, with delayed kinescope service to Winnipeg. At present only Ottawa and Montreal provide programs for the latter system. A privately owned network, to consist of at least six stations across Canada, is currently being organized.

The number of Ontario households with television sets in September, 1952 totalled 146,000. Within two years

the number had tripled and by May, 1960, had risen to an estimated 1.4 million, 89 per cent of all households in the Province.

The Canadian-United States Television Agreement provides for the assignment and utilization of 82 television channels between 54 and 890 mc/s along the border between Canada and the United States, within an area of 250 miles on either side of the boundary.

The Press

"While in England the newspaper was the offspring of the book and the pamphlet, in Upper Canada, at least, the book and the pamphlet were the offspring of the newspaper."¹

The first printing press in Ontario was brought to Newark (Niagara-on-the-Lake) from Quebec in 1793. On it was printed the first newspaper in the Province, the *Upper Canada Gazette*, on April 18 of that year. In 1798 the paper was moved to York (Toronto) and except for the years between 1813 and 1815 was published there continuously until 1845.

By the end of 1812 there were four presses in operation in Upper Canada—two at Niagara, one at York and one at Kingston. Three of these, however, were destroyed during the war with the United States, leaving only the one in Kingston. After the war, a number of papers were established in York, Niagara, Dundas, Kingston and Brockville and between 1820 and 1825, no less than three opposition papers were founded in York—John Carey's *Observer* (1820), William Lyon Mackenzie's *Colonial Advocate* (1824) and Francis Collins' *Canadian Freeman* (1825). By 1836, some 38 newspapers were being published in 21 centres. At the close of 1837, however, the number was much reduced, most of the Reform papers having disappeared with the Rebellion.

In addition to the weekly newspapers which were published during this period, a number of purely literary periodicals made their appearance. Between 1831 and 1833, three were established in Hamilton, and in 1833 two appeared in York.

While pioneer newspapers printed some news of local happenings, foreign news was far more eagerly read in the Province's isolated communities. Much space was devoted to paid government announcements, proclamations, orders and enactments. Advertisements, while generally small and unimaginative, helped to supplement meagre revenues. The circulation of these papers was very limited and it was a matter of some note in 1831 that one particular newspaper was publishing 2,000 copies every week.

Early in the nineteenth century the character of newspapers began to change as the press became increasingly

independent of government business. More and more revenue came from the printing of advertisements and a gradually increasing circulation. With this shift from government patronage, the major social and political issues of the day became the subject of editorial comment.

The early papers were probably all printed on wooden hand presses, for it is recorded that one of the first iron printing presses in the Province was imported from New York about 1832. In 1833, the manufacture of iron presses was begun in York.

Today, some 370 newspapers printed on modern machinery reach into thousands of Ontario homes every day, every week or every month. Magazines and periodicals published here also have a wide circulation. The daily newspapers tend to have a predominantly urban circulation while the weekly papers serve mainly the rural areas.

At the beginning of 1960, 48 daily and 304 weekly newspapers were being published in Ontario, as well as three weekends, 14 monthlies and a variety of magazines. Of the 369 newspapers, 56 were in a foreign language—three dailies, 39 weeklies and all of the 14 monthlies. Nine of these were published in Ukrainian, seven in Dutch, four in each of Finnish and Hungarian, three in each of Serbian and Italian and the remaining 26 in 18 different languages including Chinese, Japanese, Russian, Estonian and Lithuanian.

Behind the daily newspapers are the news agencies, without whose services the process of gathering news from across the country and around the world would be extremely difficult and expensive. The two major news-gathering organizations in Canada are Canadian Press and United Press International. The CP, formed more than 40 years ago, is owned and operated by Canadian daily newspapers. It is a co-operative organization through which local Canadian news is exchanged among its 100 members. World news is provided through reciprocal arrangements with Reuters (British) and Associated Press (American). The costs are shared by the members in relation to the population of the cities in which they publish. Weekly newspapers and radio and television stations are also provided with news. United Press International is a privately owned organization associated with the United Press International in New York. Like CP, it provides Canadian and world news and news photographs to Canadian newspapers and radio and television stations.

Several foreign news agencies and leading United Kingdom and United States newspapers have offices or correspondents in Canada to report and interpret Canadian happenings. Most of these are located in Ottawa.

Postal Services

In 1851, each of the Canadian provinces assumed control of its own postal service from the British Postmaster General. These systems were merged at Confederation to form the Canada Post Office under the

¹W. S. Wallace "The Periodical Literature of Upper Canada", *Canadian Historical Review*, March, 1931.

direction of the Postmaster General. Postal service is now available from St. John's, Newfoundland, to Victoria, British Columbia and from Pelee Island far into the Arctic.

The chief means of transporting mail is by railway mail service. The use of motor vehicles is increasing, however, and in many cases is replacing or reducing conveyance by rail. Air mail service is provided by several transcontinental flights daily plus flights to every part of the country. Connections are also made with the United States air mail system. There are more than 38,000 miles of air mail and air stage routes in Canada.

Side services are also operated to transport mail between post offices, railway stations, steamer wharves and airports, while stage services are used to carry mail between post offices not located on railway lines.

Auxiliary postal services include the issuing of money orders and the operation of the Post Office Savings Bank. This latter was established under the Post Office Act of 1867.

During the year ending March 31, 1959, the 2,624 post offices operating in Ontario collected a gross postal revenue of approximately \$73 million. This was more than two-fifths of total Canadian gross postal revenue.

APPENDIX

Statistical Statements

CONTENTS

POPULATION	PAGE	NATIONAL ACCOUNTS	PAGE
Population By Age Groups and Sex, Ontario, Selected Years 1939 to 1960.....	189	Gross National Product and Gross National Expenditure, Canada, Selected Years 1939 to 1959.....	202
Per Cent Distribution of Population By Age Groups and Sex, Ontario, Selected Years 1939 to 1960.....	189	Personal Income, Canada and Provinces, 1926 to 1959..	203
Projected Population By Age Groups, Ontario, Selected Years 1966 to 1976.....	190	Main Components of Personal Income, Ontario, 1926 to 1959.....	204
Per Cent Distribution of Projected Population By Age Groups, Ontario, Selected Years 1966 to 1976.....	190	Personal Disposable Income in Current and Constant Dollars, Ontario, 1951 to 1959.....	204
LABOUR FORCE, EMPLOYMENT AND EARNINGS		CAPITAL INVESTMENT	
Labour Force, Employment and Unemployment, Ontario and Canada, 1945 to 1960.....	191	Total New Capital and Repair Investment, Canada and Provinces, 1948 to 1960.....	205
Labour Force By Age and Sex, Ontario, 1911 to 1951, Projected 1966 to 1976.....	193	New Capital Investment, Canada and Provinces, 1948 to 1960.....	205
Index Numbers of Employment, Industrial Composite, Canada and Provinces, Selected Years 1947 to 1960..	193	New Capital Investment in Current and Constant Dollars, Canada and Ontario, 1948 to 1960.....	206
Index Numbers of Employment By Months, Industrial Composite, Ontario, 1957 to 1960.....	193	New Capital and Repair Investment By Sectors and Type, Ontario, 1958 to 1960.....	206
Index Numbers of Employment By Industry, Ontario, 1957 to 1960.....	194	NATURAL RESOURCE INDUSTRIES	
Average Weekly Wages and Salaries, Industrial Composite, Canada and Provinces, Selected Years 1947 to 1960.....	195	Agriculture	
Average Weekly Wages and Salaries By Industry, Ontario, 1957 to 1960.....	195	Income of Farm Operators from Farming Operations, Ontario, Selected Years 1939 to 1960.....	207
PRICES AND TRADE		Cash Income from the Sale of Farm Products By Products, Ontario, Selected Years 1939 to 1959.....	207
Consumer Price Indexes By Main Groups, Canada, Selected Years 1939 to 1960.....	196	Number and Value of Livestock and Poultry on Farms, Ontario, Selected Years 1945 to 1960.....	208
Index Numbers of Wholesale Prices By Principal Component Groups, Canada, Selected Years 1939 to 1960	197	Production and Utilization of Milk, Ontario, Selected Years 1939 to 1960.....	208
Index Numbers of Prices of Commodities and Services Used By Farmers, Canada, Selected Years 1939 to 1960	197	Production and Farm Value of Milk, Ontario, 1946 and 1958 to 1960.....	209
Index Numbers of Prices of Commodities and Services Used By Farmers, Eastern Canada, Selected Years 1939 to 1960.....	198	List of Marketing Plans Under the Farm Products Marketing Act, Ontario, June 1, 1960.....	209
Index Numbers of Prices of Commodities and Services Used in Farm Family Living, Canada, Selected Years 1939 to 1960.....	198	List of Marketing Plans Under the Milk Industry Act, Ontario, June 1, 1960.....	209
Index Numbers of Prices of Commodities and Services Used in Farm Family Living, Eastern Canada, Selected Years 1939 to 1960.....	198	Forestry and the Forest-Based Industries	
Index Numbers of Wholesale Prices of Field and Animal Farm Products, Canada, Eastern Canada and Western Canada, Selected Years 1939 to 1959.....	199	Area of Forested Land By Type, Canada, Quebec, British Columbia and Ontario, 1959.....	210
Index Numbers of Farm Prices of Agricultural Products, Canada and Ontario, Selected Years 1939 to 1960....	199	Accessible Timber of Merchantable Size By Species, Ontario, Selected Years 1946 to 1959.....	210
Price Index Numbers of Non-Residential Building Materials, Canada, Selected Years 1939 to 1960.....	200	Principal Statistics of Forestry and the Forest-Based Industries, Canada and Ontario, 1958.....	211
Price Index Numbers of Residential Building Materials By Main Components, Canada, Selected Years 1939 to 1960.....	200	Volume and Value of Primary Forest Production, Canada, Ontario, Quebec and British Columbia, 1940 to 1958.....	211
Price Indexes of Domestic Exports, Canada, Selected Years 1939 to 1960.....	201	Principal Statistics of the Pulp and Paper Industry, Ontario, Selected Years 1939 to 1958.....	212
Price Indexes of Imports for Consumption, Canada, Selected Years 1939 to 1959.....	201	Apparent Production of Pulpwood, Ontario, Selected Years 1946 to 1958.....	212
Stock Price Indexes, Canada, Selected Years 1939 to 1960	202	Wood-Pulp Production, Canada, Ontario, Quebec and British Columbia, Selected Years 1939 to 1958.....	212
		Paper Production By Kinds, Ontario, Selected Years 1946 to 1958.....	212
		Principal Statistics of the Paper-Using Industries, Ontario, Selected Years 1946 to 1958.....	213
		Principal Statistics of the Lumber Industry, Ontario, Selected Years 1939 to 1958.....	213

NATURAL RESOURCE INDUSTRIES (Cont'd)	PAGE
Forestry and the Forest-Based Industries (Cont'd)	
Volume and Value of Sawn Lumber, Canada, Ontario, Quebec and British Columbia, 1954 to 1958.....	213
Production of Sawn Lumber By Species, Ontario, 1954 to 1958.....	214
Number and Value of Shingles, Laths and Ties Sawn, Ontario, 1951 and 1954 to 1958.....	214
Principal Statistics of the Wood-Using Industries, Ontario, Selected Years 1946 to 1958.....	214
Depletion of Forest Resources, Ontario, Selected Years 1946 to 1958.....	215
Number of Forest Fires and Total Area Burned, Ontario, Selected Years 1946 to 1960.....	215
Forest Fires By Size of Burnt-Over Area, Ontario, Selected Years 1946 to 1960.....	215
Forest Fires By Cause, Ontario, Selected Years 1946 to 1960.....	216
Fishing, Trapping and Fur Farming	
Labour Force and Capital Equipment, Commercial Fishing, Ontario, Selected Years 1939 to 1959.....	216
Quantity Landed and Marketed Value of Fish, Canada and Ontario, Selected Years 1939 to 1959.....	216
Commercial Catch and Marketed Value of Fish By Species, Ontario, Selected Years 1939 to 1959.....	217
Number and Value of Pelts Sold, Canada and Ontario, Selected Years 1939 to 1960.....	217
Distribution of Fur Production Between Traplines and Fur Farms, Ontario, Selected Years 1939 to 1960....	217
Number and Value of Pelts from Traplines By Species, Ontario, Selected Years 1939 to 1960.....	218
Number of Licensed Fur Farms, Ontario, Selected Years 1939 to 1960.....	218
Number and Value of Pelts Exported, Ontario, Selected Years 1939 to 1960.....	218
Mining	
Gross Value of Mineral Production, Canada and Ontario, 1939 and 1945 to 1960.....	219
Gross Value of Mineral Production By Classes, Ontario, 1939 and 1945 to 1960.....	219
Gross Value of Mineral Production By Individual Minerals, Ontario, 1946 and 1958 to 1960.....	219
Production and Value of Chief Metallic Minerals, Ontario, 1939 and 1945 to 1960.....	220
MANUFACTURING	
Principal Statistics of Manufacturing, Ontario, Selected Years 1870 to 1959.....	221
Establishments, Employment and Earnings in Manufacturing By Industrial Groups, Ontario, 1949, 1957 and 1958.....	222

MANUFACTURING (Cont'd)	PAGE
Value Added and Selling Value of Factory Shipments in Manufacturing By Industrial Groups, Ontario, 1949 and 1957 to 1959.....	222
Principal Statistics of the Forty Leading Manufacturing Industries, Ontario, 1958.....	223
Selling Value of Factory Shipments of the Twenty Leading Manufacturing Industries, Canada and Ontario, 1949 and 1957 to 1959.....	224
Industries in which Ontario Accounted for Over Fifty Per Cent of Canada's Selling Value of Factory Shipments, 1958.....	224
Capital Investment in Manufacturing By Industrial Groups, Ontario, 1953 and 1959 to 1961.....	225
CONSTRUCTION AND HOUSING	
Value of Construction Work Performed, Canada and Provinces, Selected Years 1939 to 1960.....	226
Value of Construction Work Performed By Principal Types, Ontario, 1951 and 1957 to 1959.....	226
New Dwelling Units Started, Completed and Under Construction, Canada and Ontario, 1951 and 1958 to 1960.....	228
SURVEY OF PRODUCTION	
Net Value of Production By Industry, Ontario, Selected Years 1926 to 1959.....	228
TOURIST TRADE	
Principal Statistics of Hotels By Nature of Operations, Ontario, 1959.....	229
TRANSPORTATION	
Revenue Railway Freight Loaded, Ontario, Selected Years 1939 to 1959.....	229
Major Commodities Carried By Railways, Ontario, 1959.....	229
Road Mileages By Type of Surface, Ontario, 1956 to 1959.....	230
Motor Vehicle Registrations, Canada and Ontario, Selected Years 1939 to 1960.....	230
Motor Vehicle Registrations By Type, Ontario, 1946 and 1956 to 1960.....	230
Natural Gas Pipeline Mileage, Canada and Ontario, Selected Years 1946 to 1959.....	230
Oil Pipeline Mileage, Canada and Provinces, 1951 to 1959.....	231
Oil Pipeline Mileage By Companies, Ontario, 1952 to 1959.....	231
COMMUNICATIONS	
Number of Telephones, Ontario, 1939 to 1960.....	231

I—POPULATION

POPULATION BY AGE GROUPS AND SEX, ONTARIO, SELECTED YEARS 1939 TO 1960

		(Thousands)											
		Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70 +
1939	Total	3,708.0	288.0	305.2	327.3	340.5	314.8	586.3	508.3	437.6	316.3	108.5	175.2
	Male	1,884.5	146.7	154.6	165.9	172.6	160.6	297.7	261.4	225.8	161.8	53.9	83.5
	Female	1,823.5	141.3	150.6	161.4	167.9	154.2	288.6	246.9	211.8	154.5	54.6	91.7
1946	Total	4,093.0	373.0	317.7	314.1	329.4	349.1	658.6	562.8	476.6	372.0	132.0	207.7
	Male	2,064.3	191.0	161.6	159.1	166.1	173.7	329.7	287.6	243.5	189.5	65.2	97.3
	Female	2,028.7	182.0	156.1	155.0	163.3	175.4	328.9	275.2	233.1	182.5	66.8	110.4
1951	Total	4,597.6	514.7	399.3	325.3	315.7	352.3	738.3	643.2	515.6	392.8	155.2	245.2
	Male	2,314.2	263.5	204.6	165.7	160.2	176.9	364.0	327.6	264.7	196.8	77.4	112.8
	Female	2,283.4	251.2	194.7	159.6	155.5	175.4	374.3	315.6	250.9	196.0	77.8	132.4
1956	Total	5,404.9	628.8	563.7	425.9	346.8	365.1	856.1	751.9	581.5	430.7	167.4	287.0
	Male	2,721.5	320.7	287.4	217.8	176.0	182.4	428.8	380.9	299.9	214.8	81.4	131.4
	Female	2,683.4	308.1	276.3	208.1	170.8	182.7	427.3	371.0	281.6	215.9	86.0	155.6
1957	Total	5,622.0	662.4	587.6	458.8	364.9	382.1	884.0	779.5	600.8	440.3	167.8	293.8
	Male	2,834.8	337.8	300.1	234.6	186.4	192.5	445.9	394.1	309.4	219.3	81.0	133.7
	Female	2,787.2	324.6	287.5	224.2	178.5	189.6	438.1	385.4	291.4	221.0	86.8	160.1
1958	Total	5,803.0	693.5	612.8	490.9	386.0	391.8	891.1	803.1	618.4	447.1	168.5	299.8
	Male	2,924.2	354.3	312.4	251.3	197.2	198.0	450.7	404.4	317.6	221.9	80.8	135.6
	Female	2,878.8	339.2	300.4	239.6	188.8	193.8	440.4	398.7	300.8	225.2	87.7	164.2
1959	Total	5,952.0	710.9	631.7	517.6	401.0	392.8	891.6	825.8	639.6	461.5	171.4	308.1
	Male	2,999.5	363.6	322.0	265.2	205.4	198.8	453.3	414.2	328.1	228.8	81.7	138.4
	Female	2,952.5	347.3	309.7	252.4	195.6	194.0	438.3	411.6	311.5	232.7	89.7	169.7
1960	Total	6,089.0	725.0	653.0	544.8	420.2	396.5	936.9	844.2	657.7	473.2	173.7	313.8
	Male	3,066.5	371.3	332.6	279.0	215.5	200.5	452.1	422.1	336.3	234.7	82.2	140.2
	Female	3,022.5	353.7	320.4	265.8	204.7	196.0	434.8	422.1	321.4	238.5	91.5	173.6

Source: Dominion Bureau of Statistics, Reference Paper, *Population Estimates (Age and Sex)*.

PER CENT DISTRIBUTION OF POPULATION BY AGE GROUPS AND SEX, ONTARIO, SELECTED YEARS 1939 TO 1960

		Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70 +
1939	Total	100.0	7.8	8.3	8.8	9.2	8.5	15.8	13.7	11.8	8.5	2.9	4.7
	Male	100.0	7.8	8.2	8.8	9.1	8.5	15.8	13.9	12.0	8.6	2.9	4.4
	Female	100.0	7.7	8.3	8.9	9.2	8.5	15.8	13.5	11.6	8.5	3.0	5.0
1946	Total	100.0	9.1	7.8	7.7	8.0	8.5	16.1	13.8	11.6	9.1	3.2	5.1
	Male	100.0	9.3	7.8	7.7	8.0	8.4	16.0	13.9	11.8	9.2	3.2	4.7
	Female	100.0	9.0	7.7	7.6	8.1	8.6	16.2	13.6	11.5	9.0	3.3	5.4
1951	Total	100.0	11.2	8.7	7.1	6.9	7.7	16.0	14.0	11.2	8.5	3.4	5.3
	Male	100.0	11.4	8.8	7.2	6.9	7.7	15.7	14.2	11.4	8.5	3.3	4.9
	Female	100.0	11.0	8.5	7.0	6.8	7.7	16.4	13.8	11.0	8.6	3.4	5.8
1956	Total	100.0	11.6	10.4	7.9	6.4	6.8	15.8	13.9	10.8	8.0	3.1	5.3
	Male	100.0	11.8	10.5	8.0	6.5	6.7	15.8	14.0	11.0	7.9	3.0	4.8
	Female	100.0	11.5	10.3	7.8	6.4	6.8	15.9	13.8	10.5	8.0	3.2	5.8
1957	Total	100.0	11.8	10.4	8.2	6.5	6.8	15.7	13.9	10.7	7.8	3.0	5.2
	Male	100.0	11.9	10.6	8.3	6.6	6.8	15.7	13.9	10.9	7.7	2.9	4.7
	Female	100.0	11.7	10.3	8.0	6.4	6.8	15.7	13.8	10.5	7.9	3.1	5.8
1958	Total	100.0	11.9	10.6	8.5	6.6	6.7	15.4	13.8	10.7	7.7	2.9	5.2
	Male	100.0	12.1	10.7	8.6	6.7	6.8	15.4	13.8	10.9	7.6	2.8	4.6
	Female	100.0	11.8	10.4	8.3	6.6	6.7	15.3	13.9	10.5	7.8	3.0	5.7
1959	Total	100.0	11.9	10.6	8.7	6.7	6.6	15.0	13.9	10.7	7.8	2.9	5.2
	Male	100.0	12.1	10.7	8.9	6.9	6.6	15.1	13.8	11.0	7.6	2.7	4.6
	Female	100.0	11.8	10.5	8.6	6.6	6.6	14.8	13.9	10.6	7.9	3.0	5.7
1960	Total	100.0	11.9	10.7	8.9	6.9	6.5	14.6	13.9	10.8	7.8	2.8	5.2
	Male	100.0	12.1	10.8	9.1	7.0	6.5	14.7	13.8	11.0	7.7	2.7	4.6
	Female	100.0	11.7	10.6	8.8	6.8	6.5	14.4	14.0	10.6	7.9	3.0	5.7

Source: Dominion Bureau of Statistics, Reference Paper, *Population Estimates (Age and Sex)*.

PROJECTED POPULATION BY AGE GROUPS, ONTARIO, SELECTED YEARS 1966 TO 1976

	1956	1966	1971	1976
0-4 years	628,825	867,000	1,011,000	1,200,000
5-9 years	563,678	774,000	869,000	1,012,000
10-14 years	425,922	653,000	782,000	877,000
15-19 years	346,850	591,000	666,000	794,000
20-24 years	365,160	482,000	624,000	698,000
25-29 years	417,395	438,000	516,000	658,000
30-34 years	438,713	446,000	460,000	538,000
35-39 years	390,784	468,000	458,000	472,000
40-44 years	361,098	465,000	474,000	464,000
45-49 years	312,208	406,000	465,000	474,000
50-54 years	269,298	359,000	397,000	455,000
55-59 years	236,482	296,000	345,000	382,000
60-64 years	194,145	241,000	276,000	322,000
65 and over	454,375	504,000	555,000	627,000
TOTAL	5,404,933	6,990,000	7,898,000	8,973,000
Net natural increase since previous projection year, assuming no net migration		935,000	591,000	732,000
Net migration into Ontario since previous projection year		530,000	200,000	200,000
Net natural increase since previous projection year among families migrated to Ontario since 1956		120,000	117,000	143,000
Total increase since previous projection year		1,585,000	908,000	1,075,000

Source: Dominion Bureau of Statistics, *Census of Canada*; projections by the Ontario Department of Economics.

PER CENT DISTRIBUTION OF PROJECTED POPULATION BY AGE GROUPS, ONTARIO, SELECTED YEARS 1966 TO 1976

	1956	1966	1971	1976
0-4 years	11.6	12.4	12.8	13.4
5-9 years	10.4	11.1	11.0	11.3
10-14 years	8.0	9.3	10.0	9.8
15-19 years	6.4	8.5	8.4	8.8
20-24 years	6.7	6.9	7.9	7.8
25-29 years	7.7	6.3	6.5	7.3
30-34 years	8.1	6.4	5.8	6.0
35-39 years	7.2	6.7	5.8	5.2
40-44 years	6.7	6.7	6.0	5.2
45-49 years	5.8	5.8	5.9	5.3
50-54 years	5.0	5.1	5.0	5.1
55-59 years	4.4	4.2	4.4	4.2
60-64 years	3.6	3.4	3.5	3.6
65 and over	8.4	7.2	7.0	7.0
TOTAL	100.0	100.0	100.0	100.0

Source: Dominion Bureau of Statistics, *Census of Canada*; projections by the Ontario Department of Economics.

II—LABOUR FORCE, EMPLOYMENT AND EARNINGS

LABOUR FORCE, EMPLOYMENT AND UNEMPLOYMENT, ONTARIO AND CANADA, 1945 TO 1960

		Ontario				Canada			
		Labour Force	Employed	Unemployed		Labour Force	Employed	Unemployed	
				No.	% of L. F.			No.	% of L. F.
		'000	'000	'000		'000	'000	'000	
1945 Nov.	17	1,583	1,521	62	3.9	4,515	4,321	194	4.3
1946 Feb.	23	1,608	1,543	65	4.0	4,551	4,311	240	5.3
June	1	1,711	1,668	43	2.5	4,862	4,720	142	2.9
Aug.	31	1,766	1,726	40	2.3	5,025	4,896	129	2.6
Nov.	9	1,721	1,679	42	2.4	4,876	4,737	139	2.9
1947 March	1	1,677	1,630	47	2.8	4,729	4,570	159	3.4
May	31	1,761	1,735	26	1.5	4,954	4,855	99	2.0
Aug.	16	1,821	1,798	23	1.3	5,117	5,033	84	1.6
Nov.	8	1,778	1,752	26	1.5	4,968	4,870	98	2.0
1948 Feb.	21	1,729	1,683	46	2.7	4,847	4,674	173	3.6
June	5	1,799	1,770	29	1.6	5,035	4,938	97	1.9
Sept.	1	1,808	1,786	22	1.2	5,109	5,036	73	1.4
Nov.	20	1,768	1,741	27	1.5	4,961	4,850	111	2.2
1949 March	5	1,758	1,698	60	3.4	4,870	4,659	211	4.3
June	4	1,826	1,794	32	1.8	5,092	4,983	109	2.1
Aug.	26	1,873	1,843	30	1.6	5,213	5,110	103	2.0
Oct.	20	1,803	1,762	41	2.3	5,156	5,000	156	3.0
1950 March	1	1,780	1,697	83	4.7	5,048	4,703	345	6.8
June	3	1,835	1,799	36	2.0	5,198	5,043	155	3.0
Aug.	1	1,864	1,838	26	1.4	5,266	5,153	113	2.1
Nov.	1	1,823	1,793	30	1.6	5,138	5,006	132	2.6
1951 March	1	1,820	1,779	41	2.3	5,101	4,902	199	3.9
June	2	1,870	1,848	22	1.2	5,236	5,142	94	1.8
Aug.	18	1,916	1,891	25	1.3	5,338	5,246	92	1.7
Nov.	8	1,873	1,834	39	2.1	5,217	5,097	120	2.3
1952 March	1	1,858	1,790	68	3.7	5,177	4,918	259	5.0
May	31	1,912	1,879	33	1.7	5,344	5,220	124	2.3
Aug.	1	1,948	1,920	28	1.4	5,448	5,344	104	1.9
Nov.	22	1,915	1,878	37	1.9	5,325	5,192	133	2.5
Dec.	1	1,920	1,879	41	2.1	5,311	5,154	157	3.0
1953 Jan.	24	1,892	1,835	57	3.0	5,260	5,023	237	4.5
Feb.	23	1,877	1,820	57	3.0	5,247	5,014	233	4.4
March	21	1,891	1,844	47	2.5	5,246	5,033	213	4.1
April	18	1,897	1,854	43	2.3	5,297	5,103	194	3.7
May	17	1,938	1,906	32	1.7	5,386	5,259	127	2.4
June	20	1,987	1,960	27	1.4	5,461	5,359	102	1.9
July	18	2,011	1,984	27	1.3	5,594	5,491	103	1.8
Aug.	21	2,008	1,982	26	1.3	5,589	5,478	111	2.0
Sept.	16	1,969	1,939	30	1.5	5,472	5,374	98	1.8
Oct.	21	1,963	1,927	36	1.8	5,437	5,310	127	2.3
Nov.	21	1,976	1,922	54	2.7	5,408	5,226	182	3.4
Dec.	12	1,968	1,913	55	2.8	5,369	5,150	219	4.1
1954 Jan.	25	1,985	1,891	94	4.7	5,341	5,031	310	5.8
Feb.	26	1,990	1,893	97	4.9	5,332	4,990	342	6.4
March	26	1,990	1,890	100	5.0	5,343	4,997	346	6.5
April	17	1,993	1,909	84	4.2	5,369	5,040	329	6.1
May	22	2,020	1,950	70	3.5	5,476	5,245	231	4.2
June	19	2,047	1,984	63	3.1	5,557	5,361	196	3.5
July	23	2,069	2,007	62	3.0	5,662	5,477	185	3.3
Aug.	21	2,077	2,010	67	3.2	5,675	5,484	191	3.4
Sept.	18	2,030	1,963	67	3.3	5,586	5,405	181	3.2
Oct.	25	2,022	1,958	64	3.2	5,562	5,370	192	3.5
Nov.	20	2,019	1,944	75	3.7	5,514	5,284	230	4.2
Dec.	11	2,021	1,937	84	4.2	5,504	5,235	269	4.9

LABOUR FORCE, EMPLOYMENT AND UNEMPLOYMENT, ONTARIO AND CANADA, 1945 TO 1960—Continued

		Ontario				Canada			
		Labour Force	Employed	Unemployed		Labour Force	Employed	Unemployed	
		'000	'000	No.	% of L.F.	'000	'000	No.	% of L.F.
1955	Jan. 22	2,010	1,896	114	5.7	5,423	5,033	390	7.2
	Feb. 19	2,014	1,904	110	5.5	5,440	5,035	405	7.4
	March 19	2,012	1,909	103	5.1	5,447	5,026	421	7.7
	April 23	2,022	1,944	78	3.9	5,496	5,153	343	6.2
	May 21	2,047	1,997	50	2.4	5,585	5,360	225	4.0
	June 18	2,080	2,036	44	2.1	5,666	5,497	169	3.0
	July 23	2,103	2,064	39	1.9	5,789	5,633	156	2.7
	Aug. 20	2,121	2,078	43	2.0	5,826	5,685	141	2.4
	Sept. 17	2,068	2,014	54	2.6	5,685	5,536	149	2.6
	Oct. 22	2,071	2,021	50	2.4	5,675	5,522	153	2.7
	Nov. 19	2,074	2,026	48	2.3	5,639	5,464	175	3.1
	Dec. 10	2,082	2,026	56	2.7	5,647	5,429	218	3.9
1956	Jan. 21	2,064	1,983	81	3.9	5,580	5,265	315	5.6
	Feb. 18	2,071	1,982	89	4.3	5,589	5,249	340	6.1
	March 24	2,081	2,017	64	3.1	5,605	5,284	321	5.7
	April 21	2,097	2,044	53	2.5	5,654	5,381	273	4.8
	May 19	2,116	2,079	37	1.7	5,738	5,563	175	3.0
	June 23	2,175	2,138	37	1.7	5,843	5,716	127	2.2
	July 21	2,217	2,182	35	1.6	5,974	5,862	112	1.9
	Aug. 18	2,232	2,193	39	1.7	6,008	5,892	116	1.9
	Sept. 22	2,163	2,114	49	2.3	5,856	5,740	116	2.0
	Oct. 20	2,168	2,136	32	1.5	5,856	5,746	110	1.9
	Nov. 17	2,178	2,137	41	1.9	5,852	5,703	149	2.5
	Dec. 15	2,196	2,145	51	2.3	5,828	5,617	211	3.6
1957	Jan. 19	2,169	2,090	79	3.6	5,782	5,454	328	5.7
	Feb. 16	2,152	2,069	83	3.9	5,771	5,419	352	6.1
	March 16	2,172	2,083	89	4.1	5,805	5,427	378	6.5
	April 20	2,191	2,113	78	3.6	5,837	5,503	334	5.7
	May 18	2,227	2,168	59	2.6	5,970	5,761	209	3.5
	June 22	2,262	2,208	54	2.4	6,089	5,912	177	2.9
	July 20	2,299	2,243	56	2.4	6,206	6,025	181	2.9
	Aug. 24	2,310	2,243	67	2.9	6,223	6,029	194	3.1
	Sept. 21	2,257	2,174	83	3.7	6,136	5,922	214	3.5
	Oct. 19	2,253	2,182	71	3.2	6,091	5,868	223	3.7
	Nov. 16	2,261	2,173	88	3.9	6,075	5,757	318	5.2
	Dec. 14	2,253	2,139	114	5.1	6,050	5,628	422	7.0
1958	Jan. 18	2,223	2,064	159	7.2	5,977	5,398	579	9.7
	Feb. 15	2,215	2,047	168	7.6	5,958	5,357	601	10.1
	March 22	2,220	2,054	166	7.5	5,998	5,361	637	10.6
	April 19	2,232	2,098	134	6.0	6,059	5,505	554	9.1
	May 24	2,253	2,144	109	4.8	6,120	5,731	389	6.4
	June 21	2,274	2,175	99	4.4	6,203	5,863	340	5.5
	July 19	2,306	2,211	95	4.1	6,314	6,003	311	4.9
	Aug. 23	2,303	2,202	101	4.4	6,306	5,988	318	5.0
	Sept. 20	2,265	2,176	89	3.9	6,159	5,874	285	4.6
	Oct. 18	2,266	2,160	106	4.7	6,177	5,848	329	5.3
	Nov. 15	2,254	2,147	107	4.7	6,134	5,755	379	6.2
	Dec. 13	2,253	2,123	130	5.8	6,120	5,653	467	7.6
1959	Jan. 17	2,244	2,091	153	6.8	6,076	5,498	578	9.5
	Feb. 21	2,245	2,090	155	6.9	6,084	5,513	571	9.4
	March 21	2,246	2,098	148	6.6	6,077	5,523	554	9.1
	April 18	2,250	2,132	118	5.2	6,109	5,642	467	7.6
	May 16	2,264	2,177	87	3.8	6,186	5,831	355	5.7
	June 20	2,300	2,235	65	2.8	6,287	6,038	249	4.0
	July 18	2,358	2,289	69	2.9	6,434	6,194	240	3.7
	Aug. 22	2,356	2,275	81	3.4	6,425	6,167	258	4.0
	Sept. 19	2,292	2,219	73	3.2	6,291	6,066	225	3.6
	Oct. 17	2,310	2,238	72	3.1	6,290	6,039	251	4.0
	Nov. 14	2,308	2,204	104	4.5	6,247	5,930	317	5.1
	Dec. 12	2,310	2,199	111	4.8	6,231	5,825	406	6.5
1960	Jan. 16	2,317	2,174	143	6.2	6,203	5,656	547	8.8
	Feb. 20	2,313	2,164	149	6.4	6,218	5,619	599	9.6
	March 19	2,327	2,176	151	6.5	6,234	5,625	609	9.8
	April 23	2,338	2,202	136	5.8	6,259	5,707	552	8.8
	May 21	2,379	2,263	116	4.9	6,391	5,972	419	6.6
	June 18	2,376	2,278	98	4.1	6,454	6,139	315	4.9
	July 23	2,401	2,294	107	4.5	6,592	6,262	330	5.0
	Aug. 20	2,427	2,303	124	5.1	6,623	6,271	352	5.3
	Sept. 17	2,371	2,262	109	4.6	6,474	6,147	327	5.1
	Oct. 15	2,392	2,272	120	5.0	6,499	6,131	368	5.7
	Nov. 12	2,384	2,257	127	5.3	6,458	6,029	429	6.6
	Dec. 13	2,375	2,222	153	6.6	6,430	5,902	528	8.2

¹Canada estimates for June 3, 1950 including Manitoba.

Source: Dominion Bureau of Statistics, *The Labour Force*, September 1960 supplement, and monthly bulletins.

LABOUR FORCE¹ BY AGE AND SEX, ONTARIO, 1911 TO 1951, PROJECTED 1966 TO 1976

Age	1911	1921	1931	1941 ¹	1951 (Thousands)	Projections		
						1966	1971	1976
Male								
14		4	2	3	2	4	4	4
15-19	211	89	91	110	93	166	183	214
20-24		108	136	156	165	221- 226	284- 292	319- 327
25-34		221	259	299	354	435	480	588
35-44	576	291	238	262	319	466	465	467
45-54			192	221	253	376	424	456
55-59		159	116	88	96	137	160	177
60-64				65	77	101	114	133
65+	42	51	62	69	82	90- 106	92- 125	104- 151
Total	836 ²	922	1,096	1,272	1,441	1,996-2,017	2,206-2,247	2,462-2,517
Female								
14		1		1	1	1	1	1
15-19	77	43	45	69	67	128- 133	144- 154	172- 187
20-24		50	68	81	90	122	158	177
25-34		46	60	79	103	118- 123	128- 136	155- 168
35-44		33	33	45	80	137- 161	137- 175	138- 189
45-54	72		23	32	60	93- 122	105- 150	113- 175
55-59		17	13	11	20	29- 38	34- 49	38- 58
60-64				8	13	17- 24	19- 31	23- 39
65+	4	5	7	9	12	15	16	18
Total	155 ²	195	249	335	446	660- 739	742- 870	836-1,013
Both Sexes								
14		5	2	4	3	5	5	6
15-19	288	132	136	179	160	294- 299	327- 337	386- 401
20-24		158	204	237	255	343- 348	442- 450	496- 504
25-34		267	319	378	457	553- 558	608- 616	743- 756
35-44		324	271	307	399	603- 627	602- 640	605- 656
45-54	648		215	253	313	469- 498	529- 574	569- 631
55-59		176	129	99	116	166- 175	194- 209	215- 235
60-64				73	90	118- 125	133- 145	156- 172
65+	46	56	69	78	94	105- 121	108- 141	122- 169
Total	991 ²	1,117	1,345	1,608	1,887	2,656-2,756	2,948-3,117	3,298-3,530

¹Gainfully occupied definition was used prior to 1941. For 1941 the new entrants still unemployed were added to the gainfully occupied.

²Includes 10-14 year-olds (male, 6,935; female, 3,167).

³1941 includes persons in armed services.

Source: Dominion Bureau of Statistics, *Census of Canada*; projections by the Ontario Department of Economics.

INDEX NUMBERS OF EMPLOYMENT, INDUSTRIAL COMPOSITE, CANADA AND PROVINCES, SELECTED YEARS 1947 TO 1960

	Canada	Newfoundland	(1949 = 100)								British ² Columbia
			Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta ¹	
1947	95.7	n.a.	93.3	92.1	104.3	97.8	94.7	93.6	97.2	88.1	97.1
1951	108.8	111.7	112.6	100.3	109.0	109.2	110.4	103.9	106.0	112.4	106.1
1957	122.6	130.1	115.2	100.2	103.8	121.5	124.3	110.9	125.3	152.2	123.9
1958	117.9	122.6	114.9	95.5	98.0	117.0	119.6	108.8	126.6	150.5	114.7
1959	119.7	125.8	126.3	96.3	101.7	118.5	121.3	112.2	130.0	155.0	115.1
1960	118.7	129.7	128.7	95.5	103.4	118.7	119.2	111.0	126.0	153.3	148.8

¹including Northwest Territories.

²including Yukon.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

INDEX NUMBERS OF EMPLOYMENT BY MONTHS, INDUSTRIAL COMPOSITE, ONTARIO, 1957 TO 1960

Month	(1949 = 100)			
	1957	1958	1959	1960
Average	124.3	119.6	121.3	119.2
January	121.5	117.0	116.6	117.7
February	120.9	116.3	116.0	117.1
March	121.4	116.7	116.9	116.9
April	123.0	118.5	118.5	117.6
May	125.5	120.7	121.4	119.9
June	127.6	122.5	124.3	121.9
July	127.7	122.2	123.8	119.8
August	127.3	121.3	124.7	121.4
September	126.3	122.2	125.6	121.8
October	125.5	119.3	125.0	120.6
November	124.6	120.0	122.3	119.8
December	120.3	118.0	120.0	116.4

Note: Monthly statistics are based on data for the last pay period of reporting establishments in each month. Annual data are simple means of monthly statistics. Statistics are based on returns from employers usually employing 15 or more persons.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

INDEX NUMBERS OF EMPLOYMENT BY INDUSTRY, ONTARIO, 1957 TO 1960

(1949 = 100)

	1957	1958	1959	1960
Forestry (chiefly logging)	85.7	61.8	59.2	62.7
Mining	146.8	155.9	165.1	156.4
Gold ¹	81.6	81.6	81.6	82.3
Other Metals ²	255.8	280.3	306.9	279.5
Manufacturing	116.1	109.3	110.5	107.5
Food and Beverages	109.3	111.1	113.3	112.7
Meat Products	130.2	137.8	146.3	145.3
Canned and Preserved Fruits and Vegetables	120.1	116.8	114.8	113.3
Bread and Other Bakery Products	100.5	103.3	103.6	102.5
Rubber Products	109.8	100.3	108.0	100.4
Leather Products	93.3	92.6	94.5	91.5
Boots and Shoes (except rubber)	101.0	101.6	106.2	107.8
Textile Products (except clothing)	87.5	78.9	78.7	74.1
Cotton Yarn and Broad Woven Goods	90.4	81.2	72.6	57.4
Woollen Goods	68.7	55.5	55.6	57.1
Clothing (textile and fur)	83.8	79.4	79.1	75.6
Men's Clothing	98.9	91.2	89.3	86.7
Women's Clothing	90.3	92.4	90.5	85.7
Knit Goods	69.1	62.7	60.9	56.1
Wood Products	103.6	98.7	101.9	98.7
Saw and Planing Mills ³	97.5	95.5	101.0	96.9
Furniture	110.0	104.0	106.3	103.6
Paper Products	122.1	120.2	121.6	121.4
Pulp and Paper Mills	123.5	120.6	123.1	124.7
Other Paper Products ⁴	120.2	119.5	119.4	117.0
Printing, Publishing and Allied Industries	121.5	121.1	123.3	125.4
Iron and Steel Products	110.5	101.9	111.5	107.3
Agricultural Implements	57.5	62.8	77.2	67.3
Iron Castings	100.5	92.8	96.1	85.8
Machinery Manufacturing ⁵	126.0	115.9	119.8	117.6
Primary Iron and Steel	136.3	113.7	137.6	136.6
Sheet Metal Products	107.4	99.8	108.7	107.7
Transportation Equipment	143.0	124.8	107.5	99.1
Aircraft and Parts	538.1	519.4	260.1	192.4
Motor Vehicles	124.2	100.6	105.2	103.0
Motor Vehicle Parts and Accessories	110.9	97.6	103.0	99.3
Railroad and Rolling Stock Equipment	101.1	77.5	62.9	55.0
Non-Ferrous Metal Products	121.4	109.4	120.0	118.7
Smelting and Refining	146.1	117.7	135.5	140.4
Electrical Apparatus and Supplies	142.2	126.7	124.1	120.1
Non-Metallic Mineral Products ⁶	128.2	128.5	135.7	131.2
Chemical Products	134.0	132.1	130.1	135.0
Construction	141.8	131.7	131.9	125.2
Building and General Engineering ⁷	139.0	124.0	120.2	114.3
Building	n.a.	n.a.	n.a.	128.3
Engineering Work	n.a.	n.a.	69.3	61.9
Highways, Bridges and Streets	149.0	151.7	162.5	153.9
Transportation, Storage, Communication	122.1	116.3	114.9	111.6
Steam Railways	106.0	96.4	94.2	88.7
Electric and Motor Transportation ⁸	132.5	131.5	138.4	141.0
Communication	158.0	154.7	149.7	144.3
Public Utility Operation	127.5	132.0	132.2	129.5
Electric Light and Power	127.5	130.7	128.3	124.5
Trade	139.1	138.6	142.1	144.2
Wholesale	144.2	142.8	146.4	150.7
Retail	137.0	136.8	140.2	141.2
Finance, Insurance and Real Estate	146.7	150.5	154.9	158.6
Service	135.6	139.7	144.2	147.1
Hotels and Restaurants	126.5	124.6	126.7	124.3
Laundries and Dry Cleaning Plants	120.5	122.5	121.1	124.2
Business Service	n.a.	n.a.	254.1	258.9
Industrial Composite	124.3	119.6	121.3	119.2

n.a. Not available.

¹Gold mining includes alluvial gold mining; auriferous quartz mining.

²Other metal mining includes copper-gold-silver mining; iron mining; nickel-copper mining; silver-cobalt mining; silver-lead-zinc mining; miscellaneous metal mining.

³Saw and planing mills includes plywood and veneer mills; sash, door and planing mills; sawmills.

⁴Other paper products includes paper boxes and bags; roofing papers; miscellaneous paper products.

⁵Machinery manufacturing includes household, office and store machinery; machine tools; machinery, n.e.c.

⁶Non-metallic mineral products includes abrasive products; asbestos products; cement, hydraulic; clay products; glass and glass products; lime and gypsum products.

⁷Building includes buildings and structures; special trade contractors. General engineering includes other construction.

⁸Electric and motor transportation includes interurban bus and coach transportation; urban and suburban transportation systems; taxicab; truck transportation.

services incidental to transportation; other transportation.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

AVERAGE WEEKLY WAGES AND SALARIES, INDUSTRIAL COMPOSITE, CANADA AND PROVINCES, SELECTED YEARS 1947 TO 1960

	Canada	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta ¹	British ² Columbia
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1947	36.19	n.a.	29.14	32.60	33.35	34.74	37.16	36.15	35.35	37.19	38.67
1951	50.04	44.51	37.52	42.51	43.02	47.37	51.69	48.37	46.68	50.37	52.93
1957	67.93	61.99	50.68	56.36	57.33	65.18	70.56	63.73	65.26	69.62	73.80
1958	70.43	62.36	51.15	58.33	58.14	67.69	73.20	66.85	68.14	72.88	75.88
1959	73.47	63.68	54.75	60.17	60.39	70.56	76.39	70.16	70.13	75.63	80.09
1960	75.83	67.94	54.95	62.65	62.66	73.00	78.71	71.73	72.15	77.83	82.97

n.a. Not available.

¹Including Northwest Territories.

²Including Yukon.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

AVERAGE WEEKLY WAGES AND SALARIES BY INDUSTRY, ONTARIO, 1957 TO 1960

	1957	1958	1959	1960
	\$	\$	\$	\$
Forestry (chiefly logging)	79.57	85.68	87.53	88.50
Mining	84.72	87.77	92.85	95.01
Gold	68.95	70.35	71.48	73.75
Other Metals ²	94.56	97.42	103.24	106.41
Uranium	96.16	101.44	106.17	111.22
Manufacturing	73.55	76.29	79.75	82.12
Food and Beverages	63.68	66.96	69.56	71.42
Meat Products	71.45	74.35	77.59	78.72
Canned and Preserved Fruits and Vegetables	55.92	60.56	62.34	64.11
Bread and Other Bakery Products	60.48	63.04	63.35	66.04
Rubber Products	75.06	77.92	83.38	84.11
Leather Products	52.87	54.39	55.57	56.75
Boots and Shoes (except rubber)	48.40	49.46	51.53	52.16
Textile Products (except clothing)	59.00	61.78	64.88	66.68
Cotton Yarn and Broad Woven Goods	52.17	53.23	55.96	57.40
Woollen Goods	52.61	55.84	57.86	58.16
Clothing (textile and fur)	47.86	49.23	51.35	52.17
Men's Clothing	47.53	48.39	51.55	51.74
Women's Clothing	49.34	51.39	53.41	54.14
Knit Goods	46.05	47.40	48.68	50.33
Wood Products	58.12	60.72	63.24	64.93
Saw and Planing Mills ³	56.08	59.70	61.74	62.77
Furniture	60.75	62.76	65.39	67.31
Paper Products	81.09	83.59	86.29	89.68
Pulp and Paper Mills	89.57	91.93	94.68	98.58
Other Paper Products ⁴	68.75	71.61	73.91	76.56
Printing, Publishing and Allied Industries	77.88	80.76	85.03	87.61
Iron and Steel Products	80.77	83.72	88.93	91.10
Agricultural Implements	78.31	83.17	88.17	91.01
Iron Castings	76.10	77.75	83.05	84.26
Machinery Manufacturing ⁵	76.56	80.07	84.61	86.87
Primary Iron and Steel	95.05	97.85	103.09	105.01
Sheet Metal Products	75.67	80.15	86.11	89.83
Transportation Equipment	80.52	85.11	89.60	92.57
Aircraft and Parts	85.28	90.24	89.93	91.97
Motor Vehicles	81.77	87.73	96.45	99.63
Motor Vehicle Parts and Accessories	76.24	80.44	84.48	87.36
Railroad and Rolling Stock Equipment	75.73	78.03	83.40	85.40
Non-Ferrous Metal Products	79.42	79.83	82.90	86.42
Smelting and Refining	90.97	89.99	93.28	95.17
Electrical Apparatus and Supplies	76.13	78.66	81.43	84.57
Non-Metallic Mineral Products ⁶	75.46	78.84	81.91	83.96
Chemical Products	80.09	84.40	87.01	91.10
Construction	77.81	79.30	80.88	84.85
Building and General Engineering ⁷	84.12	85.33	87.30	91.84
Building	n.a.	n.a.	85.60	89.97
Engineering Work	n.a.	n.a.	99.99	106.29
Highways, Bridges and Streets	62.62	66.35	68.46	71.25
Transportation, Storage, Communication	71.92	75.52	80.08	82.83
Steam Railways	73.05	75.45	81.31	83.26
Electric and Motor Transportation	74.10	77.36	80.58	83.13
Communication	64.91	70.29	74.17	78.81

AVERAGE WEEKLY WAGES AND SALARIES BY INDUSTRY, ONTARIO, 1957 TO 1960—Continued

	1957	1958	1959	1960
	\$	\$	\$	\$
Public Utility Operation	84.72	88.91	93.51	96.75
Electric Light and Power	88.05	93.60	98.85	102.18
Trade	58.78	61.46	64.57	66.91
Wholesale	73.07	77.17	81.88	85.16
Retail	52.56	54.41	56.54	58.08
Finance, Insurance and Real Estate	65.87	68.36	70.73	72.81
Service	46.47	50.85	53.21	56.13
Hotels and Restaurants	36.28	37.64	38.97	40.22
Laundries and Dry Cleaning Plants	42.70	43.38	44.54	46.15
Business Service	n.a.	n.a.	81.94	84.16
Industrial Composite	70.56	73.20	76.39	78.70

n.a. Not available.

¹Gold mining includes alluvial gold mining; auriferous quartz mining.

²Other metal mining includes copper gold silver mining; iron mining; nickel-copper mining; silver-cobalt mining; silver-lead-zinc mining; miscellaneous metal mining.

³Saw and planing mills includes plywood and veneer mills; sash, door and planing mills; sawmills.

⁴Other paper products includes paper boxes and bags; roofing papers; miscellaneous paper products.

⁵Machinery manufacturing includes household, office and store machinery; machine tools; machinery n.e.c.

⁶Non-metallic mineral products includes abrasive products; asbestos products; cement, hydraulic; clay products; glass and glass products; lime and gypsum products; stone products; concrete products; miscellaneous non-metallic mineral products.

⁷Building includes buildings and structures; special trade contractors. General engineering includes other construction.

⁸Electric and motor transportation includes interurban bus and coach transportation; urban and suburban transportation systems; taxicab; truck transportation; services incidental to transportation; other transportation.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

III—PRICES AND TRADE

CONSUMER PRICE INDEXES BY MAIN GROUPS, CANADA, SELECTED YEARS 1939 TO 1960

	(1949 = 100)					
	Total	Food	Shelter	Clothing	Household Operation	Other Commodities and Services
1939	63.2	50.2	84.6	54.9	66.5	77.2
1946	77.5	70.0	91.8	69.2	77.2	88.7
1951	113.7	117.0	114.4	109.8	113.1	111.5
1955	116.4	112.1	129.4	108.0	116.4	118.1
1956	118.1	113.4	132.5	108.6	117.1	120.9
1957	121.9	118.6	134.9	108.5	119.6	126.1
1958	125.1	122.1	138.4	109.7	121.0	130.9
1959	126.5	121.1	141.4	109.9	122.7	134.9
1960	128.0	122.2	143.7	110.9	123.3	137.6
1959						
January	126.1	122.3	140.2	109.2	121.8	133.4
February	125.7	121.2	140.2	108.8	122.0	133.4
March	125.5	120.0	140.3	109.4	122.3	133.4
April	125.4	119.3	140.5	109.6	122.6	133.7
May	125.6	118.5	141.0	109.7	122.5	134.9
June	125.9	119.1	141.5	109.2	122.5	135.4
July	125.9	119.2	141.7	109.7	122.7	134.9
August	126.4	120.5	141.9	109.7	122.6	135.3
September	127.1	122.4	142.0	109.8	123.1	135.2
October	128.0	124.2	142.4	110.5	123.4	135.5
November	128.3	123.8	142.6	111.4	123.5	136.9
December	127.9	122.4	142.7	111.4	123.7	136.9
1960						
January	127.5	121.6	142.8	110.2	123.3	136.9
February	127.2	120.8	142.9	109.8	123.2	137.0
March	126.9	119.4	142.9	110.4	123.4	137.0
April	127.5	120.9	143.3	110.8	123.5	137.1
May	127.4	120.2	143.5	110.8	123.1	137.6
June	127.6	120.8	143.8	110.9	123.0	137.7
July	127.5	120.5	143.9	110.8	123.0	137.6
August	127.9	121.7	144.0	110.3	123.1	137.7
September	128.4	123.3	144.2	110.5	123.3	137.6
October	129.4	125.8	144.3	111.2	123.5	137.8
November	129.6	125.5	144.5	112.5	123.5	138.3
December	129.6	125.3	144.6	112.6	123.5	138.3

Source: Dominion Bureau of Statistics, *Prices and Price Indexes*.

INDEX NUMBERS OF WHOLESALE PRICES BY PRINCIPAL COMPONENT GROUPS, CANADA, SELECTED YEARS 1939 TO 1960

(1935-39 = 100)

Year	Month	General Wholesale Price Index	Vegetable Products	Animals and Products	Fibres, Textiles and Textile Products	Wood, Wood Products and Paper	Iron and Products	Non-Ferrous Metals and Products	Non-Metallic Minerals and Products	Chemicals and Products
1939		99.2	89.1	100.6	98.9	107.5	104.8	100.0	99.7	100.3
1946		138.9	134.2	160.2	137.9	172.1	127.4	108.0	114.5	120.3
1951		240.2	218.6	297.7	295.9	295.5	208.7	180.6	169.8	187.3
1955		218.9	195.1	226.0	226.2	295.7	221.4	187.6	175.2	177.0
1956		225.6	197.3	227.7	230.2	303.7	239.8	199.2	180.8	180.1
1957		227.4	197.0	238.4	236.0	299.4	252.7	176.0	189.3	182.3
1958		227.8	198.1	250.7	229.0	298.5	252.6	167.3	188.5	183.0
1959		230.6	199.5	254.3	228.0	304.0	255.7	174.6	186.5	187.0
1960		230.6	202.4	247.6	229.6	303.9	255.8	177.7	185.2	188.1
1959	January	229.9	198.0	256.7	226.8	300.4	255.4	172.8	188.8	185.5
	February	230.9	199.0	256.8	227.0	304.4	255.2	174.3	188.5	185.5
	March	230.6	199.6	254.0	225.6	304.1	255.3	176.2	188.6	185.9
	April	231.2	200.6	255.8	228.3	304.1	255.6	175.2	187.1	186.6
	May	231.2	201.5	253.8	228.8	304.5	255.8	175.7	185.7	187.3
	June	230.6	200.0	252.6	229.6	304.4	255.8	174.8	185.1	187.2
	July	231.1	199.0	257.1	229.8	304.9	255.8	172.8	185.8	187.3
	August	231.0	199.4	256.2	228.6	305.3	255.9	173.0	185.7	187.3
	September	230.9	197.8	258.6	228.0	304.9	255.9	173.3	185.6	187.6
	October	230.0	198.7	252.4	227.8	304.2	255.9	173.5	185.6	187.8
	November	230.2	199.7	250.4	227.3	303.7	255.8	177.4	185.8	188.0
	December	229.7	200.3	247.4	228.1	303.4	255.8	175.8	185.7	188.0
1960	January	230.5	202.2	246.4	229.2	304.3	256.3	176.5	186.2	187.8
	February	230.0	202.4	242.6	228.5	304.8	256.3	178.2	186.2	188.3
	March	229.6	202.2	240.8	228.2	304.4	256.3	177.6	186.4	188.4
	April	231.3	205.6	243.4	229.6	306.2	256.2	179.0	185.5	188.4
	May	231.3	205.1	241.1	231.4	307.6	256.6	179.7	185.5	188.4
	June	231.9	205.2	246.0	230.9	307.5	255.8	180.3	184.6	188.2
	July	232.2	204.7	250.5	230.6	306.3	255.5	179.7	184.5	188.2
	August	230.2	201.0	250.0	228.9	301.4	255.5	178.9	184.4	188.2
	September	230.4	200.9	252.1	228.9	301.0	255.6	177.4	184.5	188.0
	October	230.3	201.5	251.0	229.2	301.8	255.6	175.5	184.3	187.8
	November	229.7	199.6	251.1	229.8	300.7	255.2	174.9	184.9	187.8
	December	230.1	198.7	255.8	229.6	300.2	254.6	174.9	185.1	188.0

Source: Dominion Bureau of Statistics, *Prices and Price Indexes*.

INDEX NUMBERS OF PRICES OF COMMODITIES AND SERVICES USED BY FARMERS, CANADA, SELECTED YEARS 1939 TO 1960

(1935-39 = 100)

Year	Month	Composite Index Inclusive of Living Cost	Composite Index Exclusive of Living Cost	Equipment and Materials	Taxes and Interest Rates	Farm Wage Rates	Farm Family Living Costs
1939		99.4	99.3	95.7	101.1	110.3	99.5
1946		145.0	157.0	128.0	117.2	314.6	127.1
1951		217.5	230.0	206.0	151.8	416.6	198.6
1955		224.5	238.3	204.6	177.2	439.7	203.8
1956		230.3	247.6	208.8	184.7	470.3	204.5
1957		238.7	255.9	211.3	191.9	501.4	212.7
1958		242.7	259.9	213.0	196.7	513.2	217.0
1959		249.8	269.5	219.1	204.7	538.2	220.1
1960		253.6	274.7	222.7	204.7	555.3	221.7
1959	January	244.0	260.4	218.2	204.7	487.2	219.4
	April	251.8	273.0	220.2	204.7	554.6	220.0
	August	253.5	275.2	218.8	204.7	572.8	220.9
1960	January	248.3	266.7	221.9	204.7	510.4	220.6
	April	255.4	277.9	223.4	204.7	571.7	221.6
	August	257.0	279.6	222.9	204.7	583.9	223.0

Source: Dominion Bureau of Statistics, *Prices and Price Indexes* and *Price Index Numbers of Commodities and Services Used by Farmers*.

INDEX NUMBERS OF PRICES OF COMMODITIES AND SERVICES USED BY FARMERS, EASTERN CANADA, SELECTED YEARS 1939 TO 1960

(1935-39 = 100)

Year	Month	Composite Index Inclusive of Living Cost	Composite Index Exclusive of Living Cost	Equipment and Materials	Taxes and Interest Rates	Farm Wage Rates	Farm Family Living Costs
1939		99.0	98.7	94.8	99.2	110.6	99.5
1946		147.1	160.4	130.1	100.7	312.8	127.1
1951		219.4	234.6	206.2	142.0	412.4	196.5
1955		225.8	241.9	204.7	168.4	429.0	201.6
1956		231.9	251.9	207.3	178.8	461.4	201.9
1957		240.7	260.9	209.4	186.4	493.4	210.5
1958		243.7	262.3	208.6	192.3	497.8	215.7
1959		251.7	273.3	215.1	201.3	524.1	219.2
1960		255.5	278.2	217.8	201.3	540.6	221.4
1959	January	248.0	267.8	214.3	201.3	498.8	218.2
	April	252.9	275.4	217.3	201.3	527.8	219.3
	August	254.1	276.7	213.8	201.3	545.6	220.2
1960	January	252.6	274.2	217.3	201.3	522.3	220.2
	April	256.2	279.4	218.8	201.3	544.0	221.3
	August	257.6	280.9	217.4	201.3	555.6	222.7

Source: Dominion Bureau of Statistics, *Prices and Price Indexes and Price Index Numbers of Commodities and Services Used by Farmers*.

INDEX NUMBERS OF PRICES OF COMMODITIES AND SERVICES USED IN FARM FAMILY LIVING, CANADA, SELECTED YEARS 1939 TO 1960

(1935-39 = 100)

Year	Month	Composite	Food	Clothing	Fuel	Household Equipment	Health Maintenance	Miscellaneous
1939		99.5	96.0	100.7	99.5	101.1	100.9	100.5
1946		127.1	133.5	132.0	123.8	136.3	115.8	108.7
1951		198.6	241.6	222.3	176.5	208.2	159.1	120.2
1955		203.8	220.4	227.0	198.5	229.4	197.9	124.8
1956		204.5	218.2	227.5	200.3	231.7	204.9	124.3
1957		212.7	233.7	232.9	207.7	240.5	216.4	124.5
1958		217.0	234.3	238.3	211.8	247.0	229.3	125.9
1959		220.1	236.4	239.8	214.9	251.1	239.1	128.5
1960		221.7	233.7	233.7	217.2	256.4	246.0	126.5
1959	January	219.4	237.6	238.6	214.4	248.1	237.8	127.9
	April	220.0	236.9	238.9	215.5	251.0	239.4	128.1
	August	220.9	234.6	241.8	214.9	254.1	240.0	129.4
1960	January	220.6	233.6	241.8	217.4	254.1	244.0	126.4
	April	221.6	231.3	244.2	218.7	257.4	247.0	126.4
	August	223.0	236.2	215.1	215.6	257.6	247.0	126.6

Source: Dominion Bureau of Statistics, *Prices and Price Indexes and Price Index Numbers of Commodities and Services Used by Farmers*.

INDEX NUMBERS OF PRICES OF COMMODITIES AND SERVICES USED IN FARM FAMILY LIVING, EASTERN CANADA,
SELECTED YEARS 1939 TO 1960

(1935-39 = 100)

Year	Month	Composite	Food	Clothing	Fuel	Household Equipment	Health Maintenance	Miscellaneous
1939		99.5	96.3	100.2	98.9	100.9	100.8	100.6
1946		127.1	137.6	132.7	118.9	131.6	115.8	108.9
1951		196.5	245.7	222.2	162.4	197.8	159.1	120.7
1955		201.6	221.1	226.1	180.4	222.0	197.9	125.6
1956		201.9	217.5	226.3	183.0	224.2	204.9	125.2
1957		210.5	234.8	232.0	190.1	232.3	216.3	125.4
1958		215.7	237.4	238.1	193.8	239.2	229.3	126.9
1959		219.2	240.4	240.2	193.4	244.4	239.0	129.7
1960		221.4	238.8	244.5	195.1	250.3	246.0	127.6
1959	January	218.2	241.1	239.0	192.8	240.8	237.8	129.1
	April	219.3	241.2	239.4	194.4	244.5	239.4	129.3
	August	220.2	238.9	242.2	193.0	247.9	239.9	130.6
1960	January	220.2	238.4	242.2	196.8	247.9	244.0	127.6
	April	221.3	236.4	245.0	197.1	251.0	247.0	127.6
	August	222.7	241.6	246.2	191.5	252.0	246.9	127.7

Source: Dominion Bureau of Statistics, *Prices and Price Indexes and Price Index Numbers of Commodities and Services Used by Farmers*.

INDEX NUMBERS OF WHOLESALE PRICES OF FIELD AND ANIMAL FARM PRODUCTS, CANADA, EASTERN CANADA AND WESTERN CANADA,
SELECTED YEARS 1939 TO 1959

(1935-39 = 100)											
Year	Month	Canada			Eastern Canada			Western Canada			
		Total	Field	Animal	Total	Field	Animal	Total	Field	Animal	
1939		92.6	83.7	101.5	98.8	95.2	100.6	86.3	78.0	103.2	
1946		179.5	177.9	181.2	171.0	159.6	176.7	187.9	186.9	190.5	
1951		268.6	200.4	336.9	280.4	210.0	315.1	256.8	195.6	381.1	
1955		212.6	180.1	245.1	223.6	199.3	235.6	201.6	170.7	264.3	
1956		214.2	181.6	246.9	228.5	210.1	237.5	191.9	167.6	265.9	
1957		213.6	169.2	258.0	225.0	179.2	247.6	199.4	164.3	279.1	
1958		222.9	171.4	274.5	234.6	181.3	260.9	211.2	166.5	302.1	
1959		221.2	170.7	271.6	236.8	195.1	257.3	205.6	158.7	300.8	
1958	January	215.3	171.0	259.6	225.8	180.0	248.4	204.7	166.5	282.3	
	February	220.7	173.0	268.4	232.8	186.2	255.8	208.5	166.5	293.9	
	March	227.3	181.7	272.9	244.0	210.7	260.4	210.6	167.4	298.3	
	April	229.4	178.9	279.9	244.0	201.0	265.2	214.7	168.0	309.6	
	May	229.8	171.2	288.3	241.3	178.6	272.2	218.3	167.6	321.1	
	June	227.7	169.1	286.4	238.9	171.8	271.9	216.6	167.7	315.9	
	July	226.0	172.6	279.3	237.8	181.7	265.5	214.1	168.1	307.4	
	August	222.0	168.8	275.2	232.7	175.7	260.8	211.3	165.4	304.4	
	September	217.2	167.4	266.9	227.3	172.5	254.3	207.0	164.9	292.6	
	October	217.9	166.5	269.3	228.2	169.6	257.0	207.7	165.0	294.4	
	November	218.3	167.5	269.1	227.2	171.5	254.7	209.3	165.5	298.2	
	December	223.7	168.8	278.7	235.3	175.8	264.6	212.1	165.3	307.2	
1959 ¹	January	223.8	168.9	278.7	234.3	176.1	262.9	213.4	165.4	310.9	
	February	221.0	168.0	274.0	231.0	173.6	259.3	211.0	165.3	303.8	
	March	218.6	167.8	269.5	228.1	172.8	255.4	209.1	165.3	298.0	
	April	219.9	168.8	271.0	230.1	175.4	257.1	209.7	165.6	299.1	
	May	224.9	178.9	271.0	239.5	204.8	256.6	210.4	166.1	300.3	
	June	228.0	185.5	270.6	244.5	221.5	255.8	211.6	167.8	300.5	
	July	228.9	185.0	272.8	245.5	220.1	258.0	212.3	167.7	302.9	
	August	222.0	169.1	274.9	244.0	212.2	259.6	200.0	147.9	305.9	
	September	219.1	161.1	277.0	237.5	188.6	261.6	200.7	147.6	308.4	
	October	215.5	163.1	267.9	234.2	193.3	254.4	196.8	148.2	295.4	
	November	217.2	165.2	269.1	237.6	198.6	256.8	196.7	148.8	294.1	
	December	215.0	166.9	263.1	235.0	204.6	250.0	195.1	148.4	289.8	

¹Indexes subsequent to July, 1959, are subject to revision as and when participation payments are announced for Western grains.

Source: Memoranda from the Dominion Bureau of Statistics.

INDEX NUMBERS OF FARM PRICES OF AGRICULTURAL PRODUCTS, CANADA¹ AND ONTARIO, SELECTED YEARS 1939 TO 1960

(1935-39 = 100)												
		1939	1946	1951	1955	1956	1957	1958	1959 ²	1960 ²		
	Canada	91.8	204.1	296.8	232.7	234.6	234.2	245.5	245.2	239.4		
	Ontario	99.2	187.9	315.0	249.2	250.5	255.4	266.5	264.2	265.0		
1959 ²												
	January	February	March	April	May	June	July	August	September	October	November	December
Canada	249.8	247.7	245.0	244.7	246.9	247.9	250.3	246.6	245.1	241.7	239.9	236.9
	270.3	266.5	260.3	260.8	261.2	261.6	265.0	264.8	264.9	265.2	266.9	263.2
Ontario												
1960 ²												
Canada	235.7	232.5	232.7	239.7	241.3	245.4	247.1	236.3	239.8	240.1	239.8	242.4
	261.0	255.9	253.4	260.3	262.5	268.2	272.9	266.7	268.3	268.8	269.1	272.5
Ontario												

¹Excludes Newfoundland.

²Indexes subsequent to July, 1959, are subject to revision.

Source: Dominion Bureau of Statistics, *Index Numbers of Farm Prices of Agricultural Products*.

PRICE INDEX NUMBERS OF NON-RESIDENTIAL BUILDING MATERIALS, CANADA, SELECTED YEARS 1939 TO 1960

Year	Month	(1949 = 100)												
		Aggregate, Cement and Concrete	Blocks, Brick and Stone	Tile	Lumber and Products	Plumbing, Heating and Other Equipment	Electrical Equipment and Materials	Steel and Metal Work	Hardware	Lath, Plaster and Insulation	Roofing Materials	Paint and Glass	Miscellaneous Materials	
		Mix	Mix											
1939		60.3												
1946		75.0												
1951		118.6	111.3	113.0	110.6	128.3	115.7	125.4	122.0	120.3	107.1	128.9	113.0	106.0
1955		123.4	120.3	127.0	120.3	127.5	118.0	121.3	129.9	132.6	108.1	127.3	133.3	97.4
1956		128.0	117.0	130.3	120.8	131.5	123.4	123.6	139.0	145.4	112.7	137.3	141.6	93.6
1957		130.0	119.4	134.0	118.5	128.7	124.1	118.4	147.7	151.9	115.5	140.0	144.2	93.8
1958		129.8	119.6	135.7	118.2	126.8	123.8	114.0	150.9	155.1	118.5	123.3	145.3	93.7
1959		131.7	118.6	137.4	118.3	131.3	126.0	119.2	152.6	156.2	119.5	121.8	146.3	93.7
1960		132.4	119.4	139.4	120.7	129.0	126.7	119.7	152.9	157.6	119.7	126.4	146.4	97.2
1959	January	131.3	122.3	136.6	118.6	127.8	125.4	116.4	152.3	155.0	118.3	128.2	146.1	93.7
	February	131.5	120.3	137.4	117.8	129.3	125.4	118.0	152.4	155.3	118.2	127.8	146.2	93.7
	March	131.7	120.3	137.1	117.9	130.5	125.6	118.3	152.4	155.3	118.5	127.8	146.2	93.7
	April	132.1	117.6	137.4	117.9	131.3	126.1	120.4	152.6	156.6	120.0	132.6	146.2	93.7
	May	132.0	115.9	137.4	117.9	132.6	126.2	120.4	152.6	156.6	120.0	130.0	146.2	93.7
	June	131.9	115.9	137.4	118.0	132.6	126.2	120.4	152.6	156.6	119.9	128.1	142.2	93.7
	July	131.9	117.3	137.4	118.7	132.8	126.0	121.4	152.6	156.6	120.0	116.7	146.2	93.7
	August	132.0	117.3	137.4	118.7	132.9	126.2	121.4	152.6	156.6	119.9	117.2	146.2	93.7
	September	131.6	117.3	137.4	118.7	132.4	126.2	118.6	152.6	156.6	119.9	117.2	146.5	93.7
	October	131.1	117.3	137.4	118.7	131.7	126.2	117.2	152.6	156.6	119.9	108.5	146.5	93.7
	November	131.6	119.4	137.3	118.5	130.8	126.4	119.5	152.8	156.1	119.9	108.9	146.6	93.7
	December	132.2	121.7	138.5	118.5	130.9	126.4	119.0	152.9	156.1	119.9	118.4	146.5	93.7
1960	January	132.2	121.7	138.5	118.5	131.1	126.5	119.0	152.9	157.5	119.3	118.4	146.2	93.7
	February	132.0	121.7	138.5	118.2	130.6	126.0	118.1	153.0	157.5	119.3	118.5	146.2	93.7
	March	132.2	121.7	139.7	118.2	130.4	126.7	117.8	153.0	157.5	119.3	118.5	146.2	93.7
	April	132.5	119.3	139.7	118.1	130.4	126.9	122.7	152.9	157.5	119.3	118.4	146.2	93.7
	May	132.4	117.1	139.7	120.9	129.5	127.0	122.2	152.9	157.5	119.3	122.7	146.2	93.7
	June	132.5	117.2	139.7	120.9	129.1	127.0	122.2	152.9	157.5	120.1	128.8	146.2	93.7
	July	132.8	117.6	139.7	122.5	129.1	127.0	122.2	152.9	157.5	120.2	128.9	146.2	100.6
	August	132.6	117.6	139.7	122.5	128.2	126.9	122.2	152.9	157.5	119.3	128.9	146.2	100.6
	September	132.3	117.6	139.7	122.5	127.4	126.6	120.4	152.8	157.9	119.3	128.9	146.2	100.6
	October	132.4	118.5	139.2	122.4	127.2	126.4	119.7	152.8	157.9	119.2	135.8	146.2	100.6
	November	132.1	120.2	139.2	122.1	127.1	126.4	114.7	152.8	157.9	121.2	137.6	146.2	100.6
	December	132.3	122.8	139.2	121.9	127.9	126.4	114.6	153.1	157.9	120.1	131.5	148.5	100.6

Note: For 1935 to 1948 inclusive the component indexes were not calculated.
Source: Dominion Bureau of Statistics, *Prices and Price Indexes*.

PRICE INDEX NUMBERS OF RESIDENTIAL BUILDING MATERIALS BY MAIN COMPONENTS, CANADA, SELECTED YEARS 1939 TO 1960

Year	Month	(1935-39 = 100)										Other Materials
		Composite ¹ (1949 Base)	Composite (1935-39 Base)	Cement Sand and Gravel	Brick, Tile and Stone	Lumber and Products	Lath, Plaster and Insulation	Roofing Materials	Paint and Glass	Plumbing and Heating Equipment	Electrical Equipment and Fixtures	
1939		44.9	102.3	94.0	97.2	104.9	99.4	104.1	97.2	103.0	102.4	104.6
1946		67.8	154.5	102.0	121.0	202.1	104.2	146.2	144.2	127.2	116.9	126.4
1951		125.5	286.2	140.9	180.7	425.0	126.3	235.8	197.8	210.4	213.3	212.7
1955		124.3	283.4	149.4	209.5	409.4	125.3	244.5	219.7	207.2	229.2	230.3
1956		128.5	292.9	149.7	218.8	420.2	130.8	259.6	226.9	217.9	243.7	243.7
1957		128.4	292.8	153.6	223.8	415.2	136.9	253.3	225.4	227.6	209.2	253.8
1958		127.3	290.2	156.8	224.6	409.8	139.8	235.4	226.6	229.8	186.9	254.0
1959		130.0	296.3	153.8	227.8	421.1	140.9	239.3	229.3	231.6	201.6	256.9
1960		129.2	294.5	154.1	229.3	416.0	142.6	214.6	230.5	235.3	198.1	262.2
1959	January	128.8	293.6	156.3	226.3	415.8	139.8	247.6	228.7	229.8	194.8	255.7
	February	129.0	294.2	152.3	226.3	417.8	139.8	247.6	288.7	229.8	197.5	254.9
	March	129.7	295.8	152.2	226.3	421.0	139.8	250.8	228.7	229.8	201.5	254.9
	April	130.2	296.9	152.0	227.7	421.7	141.9	256.3	228.7	230.7	203.2	256.8
	May	130.9	298.4	152.0	228.4	425.6	141.4	248.9	228.7	231.1	203.3	256.8
	June	130.6	297.7	152.0	228.4	424.0	141.4	248.2	228.7	231.1	203.3	256.8
	July	130.7	298.0	154.7	228.4	424.7	141.2	231.5	228.7	232.8	204.1	256.8
	August	130.6	297.8	154.7	228.4	424.1	141.2	231.5	228.7	232.8	204.1	257.7
	September	130.1	296.7	154.7	228.4	421.0	141.2	237.9	230.6	232.8	203.5	257.7
	October	129.8	295.9	154.7	228.4	419.8	141.2	228.7	230.6	232.8	201.4	257.7
	November	129.3	294.8	154.7	228.4	417.6	141.2	222.3	230.6	232.8	201.0	258.5
	December	129.8	295.9	154.7	228.4	420.4	141.2	220.2	230.6	232.8	201.0	258.5
1960	January	129.9	296.1	154.7	228.4	420.5	141.2	213.8	230.0	234.5	200.4	260.1
	February	129.6	295.6	154.7	228.4	419.0	141.6	217.6	230.0	234.5	199.5	261.8
	March	129.6	295.6	154.7	229.8	419.0	140.2	217.6	230.0	234.5	199.5	261.8
	April	129.7	295.7	154.1	229.8	419.6	140.2	214.4	230.0	234.5	199.8	261.8
	May	129.6	295.4	153.5	229.8	418.9	140.2	208.5	230.0	236.0	198.2	261.8
	June	129.6	295.4	153.5	229.8	417.7	143.5	212.3	230.0	236.0	198.5	262.3
	July	129.4	295.0	154.3	229.7	417.1	143.5	212.3	230.0	236.0	195.6	262.3
	August	128.7	293.4	154.3	229.7	413.3	142.7	212.3	230.0	235.5	197.0	262.3
	September	128.6	293.1	154.3	229.7	412.6	142.7	212.3	230.0	235.5	197.7	262.9
	October	128.2	292.2	153.7	229.0	410.1	143.1	217.3	230.0	235.5	197.6	263.1
	November	128.5	292.9	153.7	229.0	410.7	146.8	220.8	230.0	235.5	197.6	263.1
	December	128.8	293.7	153.7	229.0	413.0	145.6	215.6	235.6	235.5	195.6	263.1

¹Arithmetically converted to base 1949 = 100, for comparability with Price Indexes of Non-residential Building Materials.
Source: Dominion Bureau of Statistics, *Prices and Price Indexes*.

PRICE INDEXES OF DOMESTIC EXPORTS, CANADA, SELECTED YEARS 1939 TO 1960

		(1948 = 100)								
Year	Month	Total	Agricultural and Animal Products	Fibres and Textiles	Wood Products and Paper	Iron and Steel and Products	Non-Ferrous Metals and Products	Non-Metallic Minerals and Products	Chemicals and Fertilizers	Miscellaneous Products
1939		45.1	41.5	45.5	41.0	51.3	50.1	65.2	76.6	65.9
1946		79.9	84.7	66.1	75.4	82.3	76.1	77.2	84.2	84.2
1951		123.0	114.8	139.8	122.4	126.2	137.9	131.7	116.7	132.3
1955		117.7	96.5	106.4	118.0	134.8	149.4	149.9	114.8	125.2
1956		121.4	95.9	108.7	120.1	143.1	165.0	156.1	113.9	126.6
1957		121.3	95.7	112.4	119.9	151.5	156.3	159.6	113.3	128.9
1958		120.6	96.6	108.0	119.3	157.1	143.6	165.3	114.5	128.8
1959		122.8	99.8	107.8	120.2	161.7	145.6	165.0	114.8	128.9
1960		123.3	99.9	110.6	118.5	162.6	150.8	165.1	115.3	134.2
1959	January	122.2	99.0	107.8	119.2	161.7	146.1	163.2	115.3	128.4
	February	122.0	99.8	107.6	118.4	162.1	143.1	166.5	114.5	128.2
	March	122.3	100.9	106.0	117.7	161.4	144.1	170.1	114.3	129.8
	April	123.0	100.9	106.2	119.4	162.0	145.2	169.1	114.7	129.8
	May	123.0	98.7	107.0	121.6	162.0	145.7	164.9	114.8	132.0
	June	122.8	98.1	107.7	121.6	162.5	145.5	168.2	114.6	130.0
	July	123.3	99.7	108.0	121.7	162.5	146.1	164.0	115.0	127.7
	August	123.1	99.4	108.5	121.3	162.7	145.8	164.4	114.8	128.0
	September	122.7	99.0	109.4	120.7	161.7	147.1	162.8	114.4	127.5
	October	123.0	99.6	109.7	121.0	160.8	145.9	161.8	114.9	134.4
	November	123.3	99.9	109.3	120.4	160.5	147.5	165.8	115.0	137.5
	December	123.3	100.2	108.6	120.4	160.5	148.3	165.3	114.7	134.6
1960	January	122.6	100.1	109.5	118.3	160.8	147.5	162.7	114.7	135.3
	February	123.0	100.0	109.8	118.8	160.9	150.0	164.1	115.1	133.6
	March	123.1	101.3	110.5	117.5	160.7	149.8	167.0	115.5	133.2
	April	123.8	101.3	110.3	119.1	161.0	150.4	168.0	115.6	134.6
	May	123.9	99.9	111.0	120.2	162.8	151.9	165.2	115.4	133.4
	June	123.4	98.0	110.7	120.3	163.5	152.4	162.5	115.3	133.2
	July	123.6	99.4	111.1	119.2	163.1	152.3	167.0	115.6	132.6
	August	123.3	99.1	110.6	118.0	163.4	153.7	164.1	115.2	133.6
	September	122.7	97.9	110.1	117.7	163.6	152.4	164.5	115.5	134.0
	October	123.5	100.7	110.5	118.2	164.0	150.0	165.3	115.3	135.0
	November	123.6	100.9	111.3	118.1	163.4	149.9	165.9	115.4	135.9
	December	122.7	100.2	111.4	116.7	163.5	148.8	165.4	114.5	135.9

Source: Dominion Bureau of Statistics, *Review of Foreign Trade and Trade of Canada, Exports*.

PRICE INDEXES OF IMPORTS FOR CONSUMPTION, CANADA, SELECTED YEARS 1939 TO 1959

		(1948 = 100)								
Year	Month	Total	Agricultural and Animal Products	Fibres and Textiles	Wood Products and Paper	Iron and Steel and Products	Non-Ferrous Metals and Products	Non-Metallic Minerals and Products	Chemicals and Fertilizers	Miscellaneous Products
1939		47.2	37.0	34.6	57.0	62.8	60.9	44.5	54.3	61.7
1946		76.5	82.1	70.2	84.4	77.1	82.5	67.8	83.5	93.2
1951		126.2	122.4	158.6	118.4	122.5	121.2	108.8	117.2	166.6
1955		110.5	99.8	95.5	119.4	125.2	124.8	100.6	109.9	119.7
1956		113.0	99.8	89.2	123.8	133.2	132.8	102.0	111.7	118.3
1957		116.4	104.0	90.2	126.0	138.1	131.3	108.5	110.9	113.2
1958		116.5	100.3	86.6	138.7	143.1	132.8	106.5	112.7	106.9
1959		114.4	91.3	82.3	139.7	144.2	135.1	101.8	110.9	116.3
1958	January	119.3	101.7	95.1	139.8	145.2	134.1	108.9	112.6	110.1
	February	119.1	101.6	95.6	139.2	144.7	135.9	107.8	113.4	109.7
	March	118.6	101.8	93.9	138.8	144.4	133.8	108.0	112.4	109.2
	April	117.5	102.8	89.1	138.4	143.1	129.3	108.6	111.5	108.0
	May	116.7	103.6	84.3	138.1	142.4	131.9	108.0	111.1	106.2
	June	115.3	101.3	83.7	137.5	141.6	131.3	105.3	111.9	105.5
	July	114.8	101.3	82.3	138.4	141.2	131.6	104.9	112.4	102.4
	August	115.3	102.0	82.2	138.3	141.9	132.7	104.9	112.3	103.9
	September	116.3	101.2	83.9	139.3	143.7	133.8	105.4	114.2	105.5
	October	116.7	104.1	83.0	139.0	143.6	133.9	106.3	113.3	105.3
	November	115.8	99.2	81.8	139.4	143.3	131.9	106.8	111.7	107.7
	December	114.8	93.7	83.0	138.4	142.9	132.8	105.7	110.5	109.2
1959	January	114.9	91.4	83.7	140.0	144.9	134.2	103.4	112.6	111.0
	February	115.8	91.2	83.8	140.5	147.1	135.2	104.4	111.1	111.7
	March	115.7	93.7	83.4	140.2	146.1	135.2	103.4	111.2	112.4
	April	115.0	92.4	79.9	140.0	145.2	135.1	104.8	111.8	111.6
	May	114.7	93.4	80.6	139.7	144.7	135.1	102.3	112.4	113.8
	June	114.7	93.4	81.0	139.6	143.8	134.7	103.2	110.9	114.7
	July	114.2	91.7	80.5	139.7	143.5	135.4	101.9	111.2	118.0
	August	114.3	91.1	82.3	139.5	143.2	135.1	101.6	110.9	118.1
	September	113.8	92.5	82.6	139.3	142.8	134.5	99.6	111.4	118.8
	October	113.3	93.2	81.7	138.8	142.4	134.9	98.6	109.6	119.6
	November	113.5	90.4	83.4	139.2	143.4	135.3	98.2	110.0	120.2
	December	114.2	89.1	85.5	139.4	143.6	135.6	99.7	109.9	122.5

Source: Dominion Bureau of Statistics, *Review of Foreign Trade and Trade of Canada, Imports*.

STOCK PRICE INDEXES, CANADA, SELECTED YEARS 1939 TO 1960

(1935-39 = 100)

Investors' Price Indexes of Common Stock						
	Total	Industrials	Utilities	Banks	Mining Stock ¹ Price Indexes	Preferred Stock Price Indexes
Number of Stocks	(93)	(72)	(14)	(7)	(27)	(27)
1939	91.6	91.2	86.1	102.5	104.5	101.6
1946	115.7	108.6	132.5	130.0	97.8	155.9
1951	168.3	172.0	162.3	144.6	99.2	164.5
1955	232.7	239.6	197.0	246.3	116.9	177.2
1956	269.0	282.7	206.3	275.8	134.4	166.2
1957	258.2	271.0	199.8	263.8	114.0	151.3
1958	239.4	247.6	189.1	273.2	103.8	160.6
1959	265.4	272.2	197.3	355.8	118.7	157.2
1960	249.6	256.6	189.1	320.0	104.9	152.6
1959 January	266.0	275.4	198.9	327.6	123.7	158.1
February	269.9	279.1	202.0	335.8	124.9	159.5
March	270.2	278.3	202.6	345.9	126.6	159.8
April	265.8	271.7	201.3	357.1	120.6	160.0
May	267.2	271.5	204.3	370.4	119.5	161.9
June	269.5	274.4	201.6	379.0	119.4	160.5
July	279.3	286.2	203.0	387.5	120.6	160.8
August	274.6	282.0	199.8	373.7	119.8	159.2
September	255.4	261.6	188.9	347.6	111.5	155.3
October	252.5	257.4	187.3	354.7	112.2	151.0
November	252.8	259.2	186.9	342.5	112.6	150.1
December	261.5	269.3	190.6	347.2	112.8	149.9
1960 January	259.2	267.6	191.0	332.8	114.4	149.0
February	249.9	257.9	186.8	316.3	110.4	148.7
March	242.3	249.3	184.5	305.8	107.4	147.0
April	248.8	256.7	188.2	309.1	105.1	146.4
May	249.2	257.4	188.1	308.8	98.0	148.6
June	251.0	258.3	190.6	317.7	96.0	152.4
July	243.6	249.8	187.3	311.5	95.5	154.8
August	249.3	255.3	191.6	322.9	101.4	155.8
September	248.9	254.2	191.7	329.3	104.0	157.3
October	241.7	246.5	187.8	318.6	107.4	157.4
November	251.1	258.0	188.2	328.5	110.2	157.3
December	260.2	268.0	193.0	338.1	108.5	157.0

¹Mining Stocks are not included in the Investors' Total Index.

Source: Dominion Bureau of Statistics, *Prices and Price Indexes*.

IV—NATIONAL ACCOUNTS

GROSS NATIONAL PRODUCT AND GROSS NATIONAL EXPENDITURE, CANADA, SELECTED YEARS 1939 TO 1959

	1939	1946	1951	1953	1955	1957	1958	1959
	Gross National Product							
	(Millions of Dollars)							
Wages, Salaries and Supplementary Labour Income	2,601	5,487	10,103	12,110	13,223	15,996	16,434	17,717
Military Pay and Allowances	32	340	201	309	394	476	491	496
Corporation Profits Before Taxes	521	1,269	2,455	2,294	2,570	2,547	2,483	2,836
Rent, Interest and Miscellaneous Investment Income	301	581	1,020	1,329	1,684	1,905	2,015	2,094
Accrued Net Income of Farm Operators	362	1,050	1,933	1,575	1,264	996	1,193	1,108
Net Income of Non-Farm Unincorporated Business	475	1,072	1,519	1,688	1,791	2,011	2,119	2,150
Inventory Valuation Adjustment	-56	-254	-643	-11	-189	-71	-33	-120
NET NATIONAL INCOME AT FACTOR COST	4,236	9,551	16,588	19,294	20,737	23,860	24,702	26,281
Indirect Taxes Less Subsidies	734	1,270	2,469	2,911	3,237	3,848	3,883	4,220
Depreciation Allowances	637	998	2,203	2,673	3,266	3,994	3,923	4,131
Residual Error of Estimate	29	31	-90	142	-108	71	98	-39
GROSS NATIONAL PRODUCT AT MARKET PRICES	5,636	11,850	21,170	25,020	27,132	31,773	32,606	34,593
	Gross National Expenditure ¹							
	(Millions of Dollars)							
Personal Expenditure on Consumer Goods and Services	3,984	8,031	13,460	15,592	17,389	19,964	21,035	22,261
Government Expenditure on Goods and Services ²	683	1,796	3,271	4,432	4,792	5,738	6,161	6,437
Business Gross Capital Investment ³	592	1,388	3,959	4,998	5,210	7,335	6,975	6,961
New Residential Construction	174	368	895	1,166	1,378	1,409	1,763	1,743
New Non-residential Construction	164	435	1,270	1,719	1,848	3,103	2,811	2,592
New Machinery and Equipment	254	585	1,794	2,113	1,984	2,823	2,401	2,626
Change in Inventories	282	333	914	583	311	210	-435	300
Net Import or Export of Goods and Services ³	123	333	-524	-443	-679	-1,402	-1,031	-1,405
Residual Error of Estimate	-28	-31	90	-142	109	-72	-99	39
GROSS NATIONAL EXPENDITURE AT MARKET PRICES	5,636	11,850	21,170	25,020	27,132	31,773	32,606	34,593

¹Includes outlays on new durable assets such as building and highway construction by governments, other than government business enterprises. Also includes net purchases of government commodity agencies.

²Includes capital expenditures by private and government business enterprises, private non-commercial institutions, and outlays on new residential construction by individuals and business investors.

³Excludes shipments of military equipment to NATO countries under the Defence Appropriation Act. Minus quantities indicate a net import.

Source: Dominion Bureau of Statistics, *National Accounts, Income and Expenditure*.

PERSONAL INCOME, CANADA AND PROVINCES, 1926 TO 1959

		Canada	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia and Territories	Foreign Countries ¹
		(Millions of Dollars)						
1926	\$	4,014	276	938	1,537	945	318	—
	%	(100.0)	(6.9)	(23.4)	(38.3)	(23.5)	(7.9)	
1927	\$	4,234	281	993	1,628	995	337	—
	%	(100.0)	(6.6)	(23.5)	(38.5)	(23.5)	(7.9)	
1928	\$	4,554	302	1,083	1,753	1,049	367	—
	%	(100.0)	(6.6)	(23.8)	(38.5)	(23.0)	(8.1)	
1929	\$	4,628	314	1,163	1,873	864	394	—
	%	(100.0)	(6.8)	(25.2)	(40.6)	(18.8)	(8.6)	
1930	\$	4,338	293	1,101	1,779	795	370	—
	%	(100.0)	(6.8)	(25.4)	(41.0)	(18.3)	(8.5)	
1931	\$	3,615	245	953	1,533	564	320	—
	%	(100.0)	(6.8)	(26.4)	(42.4)	(15.6)	(8.8)	
1932	\$	3,015	291	786	1,252	508	268	—
	%	(100.0)	(6.7)	(26.1)	(41.5)	(16.8)	(8.9)	
1933	\$	2,790	191	731	1,182	433	253	—
	%	(100.0)	(6.8)	(26.2)	(42.4)	(15.5)	(9.1)	
1934	\$	3,134	210	813	1,315	520	276	—
	%	(100.0)	(6.7)	(25.9)	(42.0)	(16.6)	(8.8)	
1935	\$	3,348	228	856	1,401	566	297	—
	%	(100.0)	(6.8)	(25.6)	(41.8)	(16.9)	(8.9)	
1936	\$	3,547	251	926	1,470	578	322	—
	%	(100.0)	(7.1)	(26.1)	(41.4)	(16.3)	(9.1)	
1937	\$	4,007	283	1,032	1,657	675	360	—
	%	(100.0)	(7.1)	(25.7)	(41.4)	(16.8)	(9.0)	
1938	\$	4,068	281	1,033	1,674	708	372	—
	%	(100.0)	(6.9)	(25.4)	(41.2)	(17.4)	(9.1)	
1939	\$	4,290	292	1,085	1,751	778	384	—
	%	(100.0)	(6.8)	(25.3)	(40.8)	(18.1)	(9.0)	
1940	\$	4,914	338	1,217	2,038	873	432	16
	%	(100.0)	(6.9)	(24.7)	(41.5)	(17.8)	(8.8)	(0.3)
1941	\$	5,851	399	1,470	2,494	938	511	39
	%	(100.0)	(6.8)	(25.1)	(42.7)	(16.0)	(8.7)	(0.7)
1942	\$	7,393	489	1,750	2,965	1,469	645	75
	%	(100.0)	(6.6)	(23.7)	(40.1)	(19.9)	(8.7)	(1.0)
1943	\$	8,042	567	1,975	3,303	1,328	754	115
	%	(100.0)	(7.1)	(24.5)	(41.1)	(16.5)	(9.4)	(1.4)
1944	\$	8,865	615	2,075	3,510	1,731	783	151
	%	(100.0)	(7.0)	(23.4)	(39.6)	(19.5)	(8.8)	(1.7)
1945	\$	9,120	670	2,172	3,656	1,606	832	184
	%	(100.0)	(7.4)	(23.8)	(40.1)	(17.6)	(9.1)	(2.0)
1946	\$	9,719	739	2,339	3,738	1,921	922	60
	%	(100.0)	(7.6)	(24.1)	(38.5)	(19.7)	(9.5)	(0.6)
1947	\$	10,375	756	2,606	4,017	1,975	1,016	5
	%	(100.0)	(7.3)	(25.1)	(38.7)	(19.0)	(9.8)	(0.1)
1948	\$	11,901	779	2,951	4,570	2,388	1,206	7
	%	(100.0)	(6.5)	(24.8)	(38.4)	(20.1)	(10.1)	(0.1)
1949	\$	12,638	980	3,062	4,904	2,413	1,273	6
	%	(100.0)	(7.8)	(24.2)	(38.8)	(19.1)	(10.0)	(0.1)
1950	\$	13,428	1,041	3,317	5,285	2,381	1,398	6
	%	(100.0)	(7.7)	(24.7)	(39.4)	(17.7)	(10.4)	(0.1)
1951	\$	15,824	1,147	3,763	6,093	3,215	1,589	17
	%	(100.0)	(7.2)	(23.8)	(38.5)	(20.3)	(10.1)	(0.1)
1952	\$	17,395	1,249	4,152	6,749	3,471	1,751	23
	%	(100.0)	(7.2)	(23.8)	(38.8)	(20.0)	(10.1)	(0.1)
1953	\$	18,336	1,313	4,469	7,209	3,452	1,868	25
	%	(100.0)	(7.2)	(24.4)	(39.3)	(18.8)	(10.2)	(0.1)
1954	\$	18,421	1,369	4,647	7,397	3,045	1,938	25
	%	(100.0)	(7.4)	(25.3)	(40.2)	(16.5)	(10.5)	(0.1)
1955	\$	19,738	1,423	4,847	7,918	3,431	2,095	24
	%	(100.0)	(7.2)	(24.6)	(40.1)	(17.4)	(10.6)	(0.1)
1956	\$	21,885	1,561	5,318	8,617	3,987	2,375	27
	%	(100.0)	(7.1)	(24.3)	(39.4)	(18.2)	(10.9)	(0.1)
1957	\$	23,024	1,639	5,719	9,322	3,771	2,538	35
	%	(100.0)	(7.1)	(24.8)	(40.5)	(16.4)	(11.0)	(0.2)
1958	\$	24,440	1,729	6,002	9,837	4,233	2,603	36
	%	(100.0)	(7.1)	(24.6)	(40.2)	(17.3)	(10.7)	(0.1)
1959	\$	25,940	1,841	6,337	10,520	4,454	2,752	36
	%	(100.0)	(7.1)	(24.4)	(40.6)	(17.2)	(10.6)	(0.1)

¹Includes receipts of income of Canadians temporarily abroad, including pay and allowances of Canadian armed forces abroad.

Note: Personal income measures all income received by Canadian residents and includes government transfer payments, investment income, private pension funds, etc. It excludes elements of the national income not paid out to persons, such as undistributed corporation profits and profits of government enterprises. In the case of farm operators and other unincorporated businesses, however, the whole net income is included in personal income since it is not statistically feasible to separate withdrawals for personal use from amounts retained in the business.

Source: Dominion Bureau of Statistics, *National Accounts, Income and Expenditure*.

MAIN COMPONENTS OF PERSONAL INCOME, ONTARIO, 1926 TO 1959

(Amount in Millions of Dollars)

	Total Personal Income ¹		Wages, Salaries and Supplementary Labour Income ²		Net Income of Non-Farm Unincorporated Business		Interest, Dividends and Net Rental Income		Net Income Received By Farm Operators		Government Transfer Payments (excl. int.)	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1926	1,537	100.0	962	62.6	185	12.0	220	14.3	142	9.2	30	2.0
1927	1,628	100.0	1,021	62.7	206	12.7	231	14.2	144	8.8	31	1.9
1928	1,753	100.0	1,107	63.1	223	12.7	248	14.1	146	8.3	33	1.9
1929	1,873	100.0	1,202	64.2	235	12.5	266	14.2	141	7.5	35	1.9
1930	1,779	100.0	1,141	64.2	208	11.7	271	15.2	121	6.8	45	2.5
1931	1,533	100.0	989	64.5	164	10.7	261	17.0	74	4.8	50	3.3
1932	1,252	100.0	814	65.0	123	9.8	217	17.3	46	3.7	55	4.4
1933	1,182	100.0	739	62.5	110	9.3	219	18.5	45	3.8	72	6.1
1934	1,315	100.0	804	61.2	123	9.4	236	17.9	73	5.6	82	6.2
1935	1,401	100.0	865	61.7	139	9.9	236	16.9	78	5.6	88	6.3
1936	1,470	100.0	936	63.7	153	10.4	228	15.5	77	5.2	81	5.5
1937	1,657	100.0	1,064	64.2	170	10.3	255	15.4	101	6.1	74	4.5
1938	1,674	100.0	1,061	63.4	179	10.7	261	15.6	103	6.2	76	4.5
1939	1,751	100.0	1,103	63.0	182	10.4	273	15.6	108	6.2	78	4.5
1940	2,038	100.0	1,272	62.4	205	10.1	291	14.3	110	5.4	67	3.3
1941	2,494	100.0	1,569	62.9	242	9.7	297	11.9	140	5.6	63	2.5
1942	2,965	100.0	1,834	61.9	261	8.8	298	10.0	222	7.5	64	2.2
1943	3,303	100.0	2,028	61.4	277	8.4	313	9.5	193	5.8	73	2.2
1944	3,510	100.0	2,081	59.3	297	8.5	314	8.9	245	7.0	82	2.3
1945	3,656	100.0	2,082	56.9	336	9.2	342	9.4	242	6.6	180	4.9
1946	3,738	100.0	2,257	60.4	403	10.8	345	9.2	246	6.6	375	10.0
1947	4,017	100.0	2,658	66.2	444	11.1	400	10.0	268	6.7	269	6.7
1948	4,570	100.0	3,105	68.0	489	10.7	407	8.9	344	7.5	266	5.8
1949	4,904	100.0	3,346	68.2	540	11.0	428	8.7	342	7.0	280	5.7
1950	5,285	100.0	3,624	68.5	551	10.4	522	9.9	324	6.1	292	5.5
1951	6,093	100.0	4,258	69.9	574	9.4	554	9.1	423	6.9	306	5.0
1952	6,749	100.0	4,718	69.9	577	8.5	603	8.9	410	6.1	441	6.5
1953	7,209	100.0	5,066	70.3	653	9.1	663	9.2	371	5.1	464	6.4
1954	7,397	100.0	5,189	70.2	628	8.5	751	10.2	293	4.0	525	7.1
1955	7,918	100.0	5,546	70.0	688	8.7	828	10.5	316	4.0	541	6.8
1956	8,617	100.0	6,198	71.9	736	8.5	850	9.9	297	3.4	549	6.4
1957	9,322	100.0	6,731	72.2	749	8.0	906	9.7	307	3.3	651	7.0
1958	9,837	100.0	6,936	70.5	802	8.2	980	10.0	357	3.6	794	8.1
1959	10,520	100.0	7,467	71.0	815	7.7	1,067	10.1	305	2.9	915	8.7

¹Includes charitable contributions from corporations and military pay and allowances which are not shown separately. Does not include employer and employee contributions to social insurance and government pension funds.

²Includes employer and employee contributions to social insurance and government pension funds.

Note: As employer and employee contributions to social insurance and government pension funds are excluded from total personal income but included in wages, salaries and supplementary labour income, the individual components shown in this table add to more than the total.

Source: Dominion Bureau of Statistics, *National Accounts, Income and Expenditure*.

PERSONAL DISPOSABLE INCOME IN CURRENT AND CONSTANT DOLLARS, ONTARIO, 1951 TO 1959

	Per Cent Change									1959/1951	1959/1958
	1951	1952	1953	1954	1955	1956	1957	1958	1959		
Personal Income (\$000,000's)	6,093	6,749	7,209	7,397	7,918	8,617	9,322	9,837	10,520	72.7	6.9
Direct Taxes ¹ (\$000,000's)	472	605	659	668	699	843	920	824	1,002	112.3	21.6
Personal Disposable Income (\$000,000's)	5,621	6,144	6,550	6,729	7,219	7,774	8,402	9,013	9,518	69.3	5.6
Population (000's)	4,598	4,788	4,941	5,115	5,266	5,405	5,622	5,803	5,952	29.4	2.6
Per Capita Disposable Income (\$)	1,222	1,283	1,326	1,316	1,371	1,438	1,494	1,553	1,599	30.9	3.0
Consumer Price Index (1949=100)	113.7	116.5	115.5	116.2	116.4	118.1	121.9	125.1	126.5	11.3	1.1
Disposable Income											
In Constant (1949) Dollars (\$000,000's)	4,944	5,274	5,671	5,791	6,202	6,583	6,893	7,205	7,524	52.2	4.4
Per Capita Disposable Income											
In Constant (1949) Dollars (\$)	1,075	1,102	1,148	1,132	1,178	1,218	1,226	1,242	1,264	17.6	1.8

¹Includes personal income taxes, succession duties, motor vehicle licences, marriage licences, fines and penalties, etc., paid by persons, and excess profits taxes paid by unincorporated businesses.

Source: Dominion Bureau of Statistics, *National Accounts, Income and Expenditure*.

V—CAPITAL INVESTMENT

TOTAL NEW CAPITAL AND REPAIR INVESTMENT, CANADA AND PROVINCES, 1948 TO 1960

	Canada	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia ¹
1948 (\$000,000's)	4,637	n.a.	18	170	132	1,163	1,724	284	243	390 ²	512
%	(100.0)	n.a.	(0.4)	(3.7)	(2.9)	(25.1)	(37.2)	(6.1)	(5.2)	(8.4)	(11.0)
1949 (\$000,000's)	5,042	58	18	170	132	1,163	1,724	284	243	390	512
%	(100.0)	(1.1)	(0.4)	(3.3)	(2.6)	(23.1)	(34.2)	(5.6)	(4.8)	(7.7)	(10.2)
1950 (\$000,000's)	5,405	57	24	174	144	1,213	2,023	301	329	528	581
%	(100.0)	(1.1)	(0.4)	(3.2)	(2.7)	(22.4)	(37.0)	(5.6)	(6.1)	(9.8)	(10.7)
1951 (\$000,000's)	6,472	89	24	185	173	1,493	2,437	351	359	635	726
%	(100.0)	(1.4)	(0.4)	(2.9)	(2.7)	(23.1)	(37.6)	(5.4)	(5.5)	(9.8)	(11.2)
1952 (\$000,000's)	7,274	126	26	203	170	1,765	2,619	359	433	762	811
%	(100.0)	(1.7)	(0.4)	(2.8)	(2.3)	(24.3)	(36.0)	(4.9)	(6.0)	(10.5)	(11.1)
1953 (\$000,000's)	7,943	114	26	236	175	1,894	2,865	430	476	898	829
%	(100.0)	(1.4)	(0.3)	(3.0)	(2.2)	(23.9)	(36.1)	(5.4)	(6.0)	(11.3)	(10.4)
1954 (\$000,000's)	7,754	104	27	223	182	1,870	2,903	391	507	807	740
%	(100.0)	(1.3)	(0.4)	(2.9)	(2.4)	(24.1)	(37.4)	(5.0)	(6.5)	(10.4)	(9.6)
1955 (\$000,000's)	8,516	117	30	221	229	2,087	3,086	417	471	918	940
%	(100.0)	(1.4)	(0.4)	(2.6)	(2.7)	(24.5)	(36.2)	(4.9)	(5.5)	(10.8)	(11.0)
1956 (\$000,000's)	10,438	124	34	257	249	2,453	3,726	495	623	1,116	1,361
%	(100.0)	(1.2)	(0.3)	(2.5)	(2.4)	(23.5)	(35.7)	(4.7)	(6.0)	(10.7)	(13.0)
1957 (\$000,000's)	11,342	134	30	268	226	2,654	4,250	511	603	1,071	1,595
%	(100.0)	(1.2)	(0.3)	(2.4)	(2.0)	(23.4)	(37.5)	(4.4)	(5.3)	(9.4)	(14.1)
1958 (\$000,000's)	10,977	136	39	259	247	2,695	4,080	550	623	1,128	1,220
%	(100.0)	(1.2)	(0.4)	(2.4)	(2.2)	(24.5)	(37.2)	(5.0)	(5.7)	(10.3)	(11.1)
1959 (\$000,000's)	11,298	151	47	314	275	2,760	3,988	651	633	1,217	1,262
%	(100.0)	(1.3)	(0.4)	(2.8)	(2.4)	(24.4)	(35.3)	(5.8)	(5.6)	(10.8)	(11.2)
1960 ³ (\$000,000's)	11,118	194	44	314	265	2,653	3,906	681	626	1,223	1,212
%	(100.0)	(1.7)	(0.4)	(2.8)	(2.4)	(23.9)	(34.6)	(6.1)	(5.6)	(11.0)	(10.9)

n.a. Not available.

¹In 1948, includes Yukon; from 1949 on, includes Northwest Territories and Yukon.

²Includes Northwest Territories.

³Preliminary.

Note: Due to rounding figures may not add.

Source: Department of Trade and Commerce, *Private and Public Investment in Canada (Outlook and Regional Estimates)*.

NEW CAPITAL INVESTMENT, CANADA AND PROVINCES, 1948 TO 1960

	Canada	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia ¹
1948 (\$000,000's)	3,175	n.a.	13	116	85	797	1,183	185	166	285 ²	345
%	(100.0)	n.a.	(0.4)	(3.6)	(2.7)	(25.1)	(37.3)	(5.8)	(5.2)	(9.0)	(10.9)
1949 (\$000,000's)	3,592	40	16	117	95	793	1,298	199	212	352	380
%	(100.0)	(1.1)	(0.5)	(3.3)	(2.7)	(22.6)	(37.1)	(5.7)	(6.1)	(10.1)	(10.8)
1950 (\$000,000's)	3,815	46	16	108	114	846	1,419	217	237	398	414
%	(100.0)	(1.2)	(0.4)	(2.8)	(3.0)	(22.2)	(37.2)	(5.7)	(6.2)	(10.4)	(10.9)
1951 (\$000,000's)	4,374	58	15	117	112	1,065	1,740	230	238	486	512
%	(100.0)	(1.3)	(0.4)	(2.6)	(2.4)	(23.3)	(38.0)	(5.0)	(5.2)	(10.6)	(11.2)
1952 (\$000,000's)	5,283	86	17	133	104	1,283	1,899	242	313	602	604
%	(100.0)	(1.6)	(0.3)	(2.5)	(2.0)	(24.3)	(36.0)	(4.6)	(5.9)	(11.4)	(11.4)
1953 (\$000,000's)	5,842	80	18	157	108	1,374	2,106	286	357	730	626
%	(100.0)	(1.4)	(0.3)	(2.7)	(1.9)	(23.5)	(36.0)	(4.9)	(6.1)	(12.5)	(10.7)
1954 (\$000,000's)	5,625	73	18	156	119	1,362	2,089	269	377	627	533
%	(100.0)	(1.3)	(0.3)	(2.8)	(2.1)	(24.2)	(37.1)	(4.8)	(6.7)	(11.2)	(9.5)
1955 (\$000,000's)	6,351	89	21	164	168	1,546	2,271	301	349	735	707
%	(100.0)	(1.4)	(0.3)	(2.6)	(2.7)	(24.3)	(35.8)	(4.7)	(5.5)	(11.6)	(11.1)
1956 (\$000,000's)	8,019	94	24	183	186	1,851	2,842	364	485	901	1,089
%	(100.0)	(1.2)	(0.3)	(2.3)	(2.3)	(23.1)	(35.4)	(4.5)	(6.1)	(11.2)	(13.6)
1957 (\$000,000's)	8,717	100	22	188	159	2,029	3,266	371	455	834	1,293
%	(100.0)	(1.1)	(0.3)	(2.2)	(1.8)	(23.3)	(37.4)	(4.3)	(5.2)	(9.6)	(14.8)
1958 (\$000,000's)	8,363	107	30	185	182	2,054	3,104	409	477	890	925
%	(100.0)	(1.3)	(0.3)	(2.2)	(2.2)	(24.6)	(37.1)	(4.9)	(5.7)	(10.6)	(11.1)
1959 (\$000,000's)	8,417	115	37	226	203	2,094	2,900	484	467	947	944
%	(100.0)	(1.4)	(0.4)	(2.7)	(2.4)	(24.9)	(34.5)	(5.8)	(5.5)	(11.3)	(11.2)
1960 ³ (\$000,000's)	8,200	150	34	223	187	1,960	2,836	513	464	956	877
%	(100.0)	(1.8)	(0.4)	(2.7)	(2.3)	(23.9)	(34.6)	(6.3)	(5.7)	(11.7)	(10.7)

n.a. Not available.

¹In 1948, includes Yukon; from 1949 on, includes Northwest Territories and Yukon.

²Includes Northwest Territories.

³Preliminary actual.

Note: Due to rounding figures may not add.

Source: Department of Trade and Commerce, *Private and Public Investment in Canada (Outlook and Regional Estimates)*.

NEW CAPITAL INVESTMENT IN CURRENT AND CONSTANT DOLLARS¹, CANADA AND ONTARIO, 1948 TO 1960

	CANADA		ONTARIO					
	New Capital Investment		New Capital Investment		Construction Investment		Machinery & Equipment Investment	
	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
	(Millions of Dollars)							
1948	3,175	3,323	1,183	1,238	681	706	502	532
1949	3,502	3,502	1,298	1,298	792	792	506	506
1950	3,815	3,617	1,419	1,345	895	850	524	497
1951	4,574	3,869	1,740	1,472	1,023	863	717	608
1952	5,283	4,317	1,899	1,534	1,137	906	762	643
1953	5,842	4,641	2,106	1,658	1,276	984	830	676
1954	5,625	4,440	2,089	1,629	1,317	1,016	772	618
1955	6,351	4,895	2,271	1,736	1,486	1,116	785	620
1956	8,019	5,818	2,842	2,050	1,788	1,271	1,054	779
1957	8,717	6,047	3,266	2,259	2,067	1,420	1,199	839
1958	8,364	5,690	3,104	2,104	2,144	1,451	960	656
1959	8,417	5,587	2,900	1,925	1,904	1,250	996	665
1960 ²	8,200	5,327	2,836	1,842	1,851	n.a.	985	n.a.

n.a. Not available.

¹Current dollars have been deflated by National Accounts Implicit Price Deflators for residential construction, non-residential construction, and machinery and equipment (1949 = 100).

²Preliminary actual.

Source: Department of Trade and Commerce, *Private and Public Investment in Canada (Outlook and Regional Estimates)*.

NEW CAPITAL AND REPAIR INVESTMENT BY SECTORS AND TYPE, ONTARIO, 1958 TO 1960

		Construction				Machinery and Equipment				Total
		New	%	Repair	%	New	%	Repair	%	
1958										
Primary Industries and Construction Industries	(\$000,000's)	83.2	(3.9)	32.4	(7.1)	183.8	(19.1)	101.7	(19.5)	401.1
	%	(20.7)		(8.1)		(45.8)		(25.4)		(100.0)
Manufacturing	(\$000,000's)	159.0	(7.4)	49.3	(10.9)	344.2	(35.9)	234.0	(44.9)	786.5
	%	(20.2)		(6.3)		(43.8)		(29.7)		(100.0)
Utilities	(\$000,000's)	506.4	(23.6)	89.6	(19.7)	255.9	(26.7)	136.9	(26.2)	988.8
	%	(51.2)		(9.1)		(25.9)		(13.8)		(100.0)
Trade, Finance and Commercial Services	(\$000,000's)	162.1	(7.6)	26.5	(5.8)	123.3	(12.8)	34.5	(6.6)	346.4
	%	(46.8)		(7.6)		(35.6)		(10.0)		(100.0)
Housing	(\$000,000's)	718.1	(33.5)	161.6	(35.6)	—		—		879.7
	%	(81.6)		(18.4)						(100.0)
Institutional Services and Government Depts.	(\$000,000's)	515.7	(24.0)	94.6	(20.9)	52.8	(5.5)	14.6	(2.8)	677.7
	%	(76.1)		(14.0)		(7.8)		(2.1)		(100.0)
Total	(\$000,000's)	2,144.5	(100.0)	454.0	(100.0)	960.0	(100.0)	521.7	(100.0)	4,080.2
	%	(52.6)		(11.1)		(23.5)		(12.8)		(100.0)
1959										
Primary Industries and Construction Industries	(\$000,000's)	67.4	(3.5)	34.5	(7.1)	170.5	(17.1)	101.4	(16.9)	373.8
	%	(18.0)		(9.2)		(45.6)		(27.1)		(100.0)
Manufacturing	(\$000,000's)	131.7	(6.9)	57.1	(11.7)	370.7	(37.2)	285.1	(47.5)	844.6
	%	(15.6)		(6.8)		(43.9)		(33.8)		(100.0)
Utilities	(\$000,000's)	321.7	(16.9)	98.0	(20.1)	267.5	(26.9)	156.5	(26.1)	843.7
	%	(38.1)		(11.6)		(31.7)		(18.5)		(100.0)
Trade, Finance and Commercial Services	(\$000,000's)	163.1	(8.6)	28.2	(5.8)	133.7	(13.4)	35.5	(5.9)	360.5
	%	(45.2)		(7.8)		(37.1)		(9.8)		(100.0)
Housing	(\$000,000's)	662.7	(34.8)	168.0	(34.4)	—		—		830.7
	%	(79.8)		(20.2)						(100.0)
Institutional Services and Government Depts.	(\$000,000's)	557.9	(29.3)	101.9	(20.9)	53.4	(5.4)	21.3	(3.6)	734.5
	%	(76.0)		(13.9)		(7.3)		(2.9)		(100.0)
Total	(\$000,000's)	1,904.5	(100.0)	487.7	(100.0)	995.8	(100.0)	599.8	(100.0)	3,987.8
	%	(47.8)		(12.2)		(25.0)		(15.0)		(100.0)
1960 ¹										
Primary Industries and Construction Industries	(\$000,000's)	64.2	(3.5)	33.6	(6.9)	164.5	(16.7)	97.0	(16.7)	359.3
	%	(17.9)		(9.4)		(45.8)		(27.0)		(100.0)
Manufacturing	(\$000,000's)	133.1	(7.2)	51.8	(10.6)	416.2	(42.3)	278.6	(48.0)	879.7
	%	(15.1)		(5.9)		(47.3)		(31.7)		(100.0)
Utilities	(\$000,000's)	351.0	(19.0)	95.4	(19.5)	205.5	(20.9)	153.7	(26.5)	805.6
	%	(43.6)		(11.8)		(25.5)		(19.1)		(100.0)
Trade, Finance and Commercial Services	(\$000,000's)	151.6	(8.2)	26.2	(5.3)	138.3	(14.0)	35.5	(6.1)	351.6
	%	(43.1)		(7.5)		(39.3)		(10.1)		(100.0)
Housing	(\$000,000's)	557.2	(30.1)	177.5	(36.3)	—		—		734.7
	%	(75.8)		(24.1)						(100.0)
Institutional Services and Government Depts.	(\$000,000's)	593.6	(32.0)	104.9	(21.4)	60.0	(6.1)	15.8	(2.7)	774.3
	%	(76.7)		(13.5)		(7.7)		(2.0)		(100.0)
Total	(\$000,000's)	1,850.7	(100.0)	489.4	(100.0)	984.5	(100.0)	580.6	(100.0)	3,905.2
	%	(47.4)		(12.5)		(25.2)		(14.9)		(100.0)

¹Preliminary actual.

Source: Department of Trade and Commerce, *Private and Public Investment in Canada (Outlook and Regional Estimates)*.

VI—NATURAL RESOURCE INDUSTRIES

A—Agriculture

INCOME OF FARM OPERATORS FROM FARMING OPERATIONS, ONTARIO, SELECTED YEARS 1939 TO 1960

	Cash Income from the Sale of Farm Products	Income in Kind	Value of Inventory Changes	Gross Farm Income	Operating and Depreciation Charges	Net Farm Income
	(Thousands of Dollars)					
1939	208,974	54,552	3,804	267,330	152,228	115,102
1945	442,625	71,349	-13,735	500,239	249,244	250,995
1951	800,666	94,421	1,712	896,799	465,627	431,172
1952	770,675	100,806	57,060	928,541	496,826	431,715
1953	749,106	97,035	27,499	873,640	495,022	378,618
1954	726,397	97,350	-8,283	815,464	520,424	295,040
1955	766,237	98,230	4,639	869,106	536,649	332,457
1956	780,551	96,124	12,064	888,739	575,713	313,026
1957	790,199	98,179	17,254	905,632	575,505	330,127
1958	854,807	102,968	32,008	989,783	606,781	383,002
1959	857,272	106,856	-1,714	962,414	647,805	314,609
1960 ¹	883,229	107,977	2,017	993,223	640,604	352,619

¹ Preliminary.

Source: Dominion Bureau of Statistics, *Handbook of Agricultural Statistics and Farm Net Income*.

CASH INCOME FROM THE SALE OF FARM PRODUCTS BY PRODUCTS, ONTARIO, SELECTED YEARS 1939 TO 1959

	1939	1945	1951	1952	1953	1954	1955	1956	1957	1958	1959
	(Thousands of Dollars)										
GRAIN, SEEDS AND HAY											
Wheat	3,946	7,672	20,730	13,273	22,714	11,665	10,092	9,040	12,314	15,671	6,105
Oats	2,572	1,145	4,399	3,634	3,282	3,087	3,136	3,378	3,089	3,962	4,373
Barley	3,620	721	1,323	1,363	963	909	685	665	525	543	563
Rye	112	161	350	334	280	257	181	309	279	327	220
Flaxseed	32	392	2,804	2,085	941	770	577	502	326	326	364
Corn	1,672	6,825	17,393	16,404	20,180	15,811	20,624	21,842	22,254	23,061	22,075
Clover and Grass Seed	1,381	2,049	4,628	2,961	2,274	3,283	2,138	1,766	2,575	2,726	1,623
Hay and Clover	222	1,161	952	320	591	584	319	290	279	200	130
Total	13,557	20,126	52,579	40,374	51,225	36,366	37,752	37,792	41,641	46,816	35,453
VEGETABLE AND OTHER FIELD CROPS											
Potatoes	6,596	8,989	8,340	20,406	9,345	8,192	9,839	10,318	9,799	10,623	11,321
Vegetables	10,694	22,998	35,638	42,106	33,462	34,116	35,044	33,854	39,308	44,477	42,099
Sugar Beets	2,472	1,791	5,007	4,616	3,771	2,577	3,639	1,946	3,439	5,855	4,995
Tobacco	17,742	29,731	54,648	64,006	57,246	63,596	72,221	59,972	73,736	80,778	85,314
Total	37,504	63,509	103,633	131,134	103,824	108,481	120,743	106,090	126,282	141,733	143,729
LIVESTOCK AND POULTRY											
Cattle and Calves	38,856	79,745	200,303	164,992	166,482	156,613	184,387	191,348	174,979	209,046	206,229
Sheep and Lambs	2,127	3,334	3,775	2,749	2,783	3,091	3,108	2,931	2,989	3,026	2,948
Hogs	31,260	71,541	138,109	133,943	118,771	121,450	105,900	114,419	114,664	115,944	127,749
Poultry	9,988	26,808	68,391	64,658	57,196	55,909	66,500	62,975	55,650	62,750	57,632
Total	82,231	181,428	410,578	366,342	345,232	337,063	359,895	371,673	348,282	390,766	394,558
DAIRY PRODUCTS	47,437	104,496	136,869	137,527	140,083	142,935	145,681	152,677	160,953	171,442	184,868
FRUITS	4,784	10,040	14,626	17,477	20,043	21,910	19,740	17,452	18,658	20,810	15,641
OTHER PRINCIPAL FARM PRODUCTS											
Eggs	12,586	42,790	51,782	49,495	62,454	53,944	54,991	64,876	64,644	70,516	64,585
Wool	333	749	1,060	564	620	621	582	573	612	749	679
Honey	1,488	1,760	2,877	2,572	1,799	1,211	1,235	1,210	1,925	1,322	1,769
Maple Products	488	253	1,069	1,261	345	741	636	830	1,028	1,006	629
Total	14,895	45,552	56,788	53,892	65,218	56,517	57,444	67,489	68,209	73,593	67,662
MISCELLANEOUS FARM PRODUCTS	4,373	10,883	15,692	14,935	14,512	14,091	14,854	15,095	15,280	16,903	16,837
FOREST PRODUCTS	3,020	4,513	6,623	6,503	6,548	5,957	6,408	8,219	6,896	5,587	4,917
FUR FARMING	1,173	2,078	3,278	2,491	2,421	3,077	3,720	4,064	3,998	4,633	3,697
FARM CASH INCOME	208,974	442,625	800,666	770,675	749,106	726,397	766,237	780,551	790,199	872,283	867,302

Source: Dominion Bureau of Statistics, *Memoranda, Handbook of Agricultural Statistics, and Farm Cash Income*.

NUMBER AND VALUE OF LIVESTOCK AND POULTRY ON FARMS, ONTARIO, SELECTED YEARS 1945 TO 1960

		Horses	Cattle		Swine	Sheep and Lambs	Hens and Chickens	Turkeys	Ducks	Geese
			Total ¹	Milk						
1945	(000's)	470	2,700	1,441	1,560	665	26,176	720	337	289
	(\$000's)	44,650	214,242	n.a.	35,140	7,881	n.a.	n.a.	n.a.	n.a.
1951	(000's)	261	2,466	1,272	1,756	360	23,767	666	165	139
	(\$000's)	22,518	540,133	n.a.	69,628	12,241	31,135	2,191	246	430
1958	(000's)	115	2,945	1,292	1,850	383	31,165	1,950	130	110
	(\$000's)	14,950	450,615	n.a.	73,440	8,037	31,435	5,518	166	301
1959	(000's)	102	2,970	1,290	2,182	402	29,500	2,660	130	111
	(\$000's)	14,439	485,429	n.a.	62,639	7,766	28,384	6,862	156	288
1960	(000's)	95	3,048	1,330	1,880	385	27,600	2,200	130	109
	(\$000's)	14,998	482,393	277,805	53,466	7,523	26,109	4,290	145	251

n.a. Not available.

¹Total includes milk cattle.

Source: Ontario Department of Agriculture, *Agricultural Statistics for Ontario and Monthly Crop and Livestock Report*.

PRODUCTION AND UTILIZATION OF MILK, ONTARIO, SELECTED YEARS 1939 TO 1960

	VALUE								Total Milk Production	
	Used in Manufacture				Otherwise Used					
	On Farms	In Factories	Total	% of Total Milk Production	Fluid Sales	Farm Home Consumed	Fed on Farms	Total ¹		% of Total Milk Production
	(\$000's)	(\$000's)	(\$000's)		(\$000's)	(\$000's)	(\$000's)	(\$000's)	(\$000's)	
1939	2,982	28,677	31,659	56.9	17,931	4,183	1,915	24,029	43.1	55,688
1945	2,748	63,625	66,373	53.9	40,529	9,033	7,297	56,850	46.1	123,232
1951	3,598	73,933	77,531	47.0	62,972	13,902	10,447	87,321	53.0	164,852
1952	1,228	69,150	70,378	45.8	68,236	5,638	9,236	83,200	54.2	153,578
1953	866	69,481	70,347	45.2	70,496	5,529	9,202	85,227	54.8	155,574
1954	824	70,204	71,028	45.0	72,649	5,441	8,789	86,879	55.0	157,907
1955	635	70,380	71,015	44.4	75,236	5,453	8,245	88,934	55.6	159,949
1956	586	71,340	71,926	42.7	81,232	5,661	5,197	96,606	57.3	168,532
1957	460	75,930	76,390	43.3	84,977	5,640	5,331	99,865	56.7	176,255
1958	481	83,142	83,623	44.4	88,251	6,122	5,762	104,836	55.6	188,459
1959	478	93,149	93,627	45.7	91,859	6,886	7,021	111,168	54.3	204,795
1960 ²	406	90,121	90,527	44.6	94,360	6,595	6,687	112,559	55.4	203,086

	VOLUME								Total Milk Production	
	Used in Manufacture				Otherwise Used					
	On Farms	In Factories	Total	% of Total Milk Production	Fluid Sales	Farm Home Consumed	Fed on Farms	Total		% of Total Milk Production
	(000 lb.)	(000 lb.)	(000 lb.)		(000 lb.)	(000 lb.)	(000 lb.)	(000 lb.)	(000 lb.)	
1939	348,797	3,396,024	3,744,821	66.4	1,179,675	492,129	225,320	1,897,124	33.6	5,641,945
1945	111,665	3,594,135	3,705,800	64.9	1,558,227	212,717	237,520	2,008,464	35.1	5,714,264
1951	70,431	2,945,242	3,015,673	59.7	1,597,820	224,796	211,981	2,034,597	40.3	5,050,270
1952	47,104	3,070,685	3,117,789	60.7	1,591,182	223,728	204,599	2,019,509	39.3	5,137,298
1953	33,766	3,219,952	3,253,718	61.2	1,654,224	222,957	186,134	2,063,315	38.8	5,317,033
1954	31,590	3,293,649	3,325,239	61.1	1,721,583	223,900	175,100	2,120,583	38.9	5,445,822
1955	24,780	3,325,694	3,350,474	60.4	1,804,780	227,200	160,770	2,192,750	39.6	5,543,224
1956	22,850	3,219,974	3,242,824	57.6	1,932,823	234,883	215,642	2,383,348	42.4	5,626,172
1957	17,948	3,275,551	3,293,499	57.4	2,004,073	226,500	214,100	2,444,673	42.6	5,737,972
1958	17,878	3,512,703	3,530,581	58.7	2,041,680	227,600	214,200	2,483,480	41.3	6,014,061
1959	17,737	3,614,801	3,632,538	58.5	2,111,370	230,300	234,800	2,576,470	41.5	6,209,008
1960 ²	15,070	3,634,745	3,649,815	58.6	2,125,089	222,806	225,900	2,573,789	41.4	6,223,604

¹Includes fluid sales of skim milk and buttermilk.

²Preliminary.

Source: Ontario Department of Agriculture, *Agricultural Statistics and Monthly Dairy Report*.

PRODUCTION AND FARM VALUE OF MILK, ONTARIO, 1946 AND 1958 TO 1960

	1946		1958		1959		1960 ¹	
	Volume (000 lb.)	Value (\$000's)	Volume (000 lb.)	Value (\$000's)	Volume (000 lb.)	Value (\$000's)	Volume (000 lb.)	Value (\$000's)
USED IN MANUFACTURE								
On Farms								
Dairy Butter	112,788 ²	3,176	17,878	481	17,737	478	15,070	406
In Factories								
Creamery Butter	1,620,676	28,894	2,093,177	46,884	2,044,715	50,066	1,987,643	48,058
Cheddar Cheese	1,061,442	23,111	690,052	17,182	759,374	21,739	728,233	17,998
Other Cheese—Whole Milk	{ 12,087	{ 203	58,498	1,481	68,926	1,942	74,349	1,875
—Cream Cheese			13,256	338	11,083	312	14,811	373
Cottage Cheese—Creamed			5,537	141	5,802	164	5,937	147
Ice Cream	98,230	1,906	231,506	5,771	260,372	6,082	261,018	6,192
Condensed Milk	33,094	705	30,625	826	31,287	865	31,172	857
Evaporated Milk	215,408	4,588	225,375	6,078	243,876	6,743	271,237	7,460
Whole Milk Powder	118,416	2,534	139,984	3,775	163,264	4,515	228,416	6,282
Partly Skimmed Evaporated Milk	—	—	16,807	453	16,236	449	15,907	438
Cream Powder	546	12	—	—	—	—	—	—
Substandard Whole Milk Powder	—	—	6,568	177	2,796	77	3,237	89
Malted Milk	5,175	110	—	—	—	—	—	—
Sterilized Cream, Cream Powder and Malted Milk ³	—	—	1,318	36	7,070	195	12,785	352
Unclassified	1,806	38	—	—	—	—	—	—
OTHERWISE USED								
Fluid Sales—Milk	{ 1,658,346	{ 47,184	1,731,719	80,467	1,787,220	84,125	1,790,478	86,651
—Cream as Milk			309,961	7,784	324,150	7,734	334,611	7,709
Farm Home Consumed	217,032	10,279	227,600	6,122	230,300	6,886	222,800	6,595
Fed to Livestock	231,270	7,480 ³	214,200	5,762	234,800	7,021	225,900	6,687
Skim and Buttermilk	—	—	—	4,701	—	5,402	—	4,917
TOTAL PRODUCTION	5,386,316	130,220	6,014,061	188,459	6,209,008	204,795	6,223,604	203,086

¹Preliminary.

²Includes a small amount of cheese.

³Includes skim milk and buttermilk.

⁴1959 and 1960 data include formula milks and evaporated milk of 2% fat.

Source: Ontario Department of Agriculture, *Annual Report* and *Monthly Dairy Report*.

**LIST OF MARKETING PLANS UNDER THE FARM PRODUCTS MARKETING ACT,
ONTARIO, JUNE 1, 1960**

THE ONTARIO ASPARAGUS GROWERS' MARKETING PLAN, 1938
 THE SOUTH-WESTERN ONTARIO SUGAR-BEET GROWERS' MARKETING-FOR-PROCESSING SCHEME, 1942
 THE ONTARIO SEED-CORN GROWERS' MARKETING PLAN, 1942
 THE ONTARIO BERRY GROWERS' MARKETING PLAN, 1944
 THE ONTARIO BEAN GROWERS' MARKETING PLAN, 1944
 THE ONTARIO VEGETABLE GROWERS' MARKETING PLAN, 1946
 THE ONTARIO HOG PRODUCERS' MARKETING PLAN, 1946
 THE ONTARIO GRAPE GROWERS' MARKETING PLAN, 1947
 THE ONTARIO SOYA-BEAN GROWERS' MARKETING PLAN, 1947
 THE ONTARIO FRESH-PEACH GROWERS' MARKETING PLAN, 1954
 THE ONTARIO FLUE-CURED TOBACCO GROWERS' MARKETING PLAN, 1957
 THE ONTARIO WHEAT PRODUCERS' MARKETING PLAN, 1958
 THE ONTARIO TENDER FRUIT GROWERS' MARKETING-FOR-PROCESSING PLAN, 1959

**LIST OF MARKETING PLANS UNDER THE MILK INDUSTRY ACT,
ONTARIO, JUNE 1, 1960**

THE ONTARIO CONCENTRATED MILK PRODUCERS' MARKETING-FOR-PROCESSING PLAN, 1954
 THE ONTARIO CREAM PRODUCERS' MARKETING-FOR-PROCESSING PLAN, 1955
 THE ONTARIO CHEESE PRODUCERS' MARKETING PLAN, 1957

Note: The dates represent the years in which the marketing plans were established. It should be noted that most of the plans have been revised and amended since their establishment.

B—Forestry and the Forest-Based Industries

AREA OF FORESTED LAND BY TYPE, CANADA, QUEBEC, BRITISH COLUMBIA AND ONTARIO, 1959

		Canada	Quebec	British Columbia	Ontario	Ontario as % of Canada
FORESTED LAND						
Accessible Productive						
Softwood —Merchantable	M acre	148,867	40,506	42,483	17,592	11.8
—Young Growth	"	104,360	12,937	52,227	17,011	16.3
Mixedwood—Merchantable	"	54,582	13,949	—	13,517	24.8
—Young Growth	"	44,846	11,528	—	19,944	44.5
Hardwood —Merchantable	"	21,679	1,990	2,508	3,646	16.8
—Young Growth	"	32,269	3,794	4,983	11,134	34.5
Unclassified ¹	"	50,957	1,158	15,239	761	1.5
Total Accessible	"	457,560	85,862	117,440	83,605	18.3
Potentially Accessible	"	153,767	55,112	15,943	22,469	14.6
Total Productive	"	611,327	140,974	133,383	106,074	17.4
Non-Productive	"	481,561	100,954	37,905	61,444	12.8
TOTAL FORESTED LAND	"	1,092,888	241,928	171,288	167,518	15.3
NON-FORESTED LAND	"	1,185,664	93 342	58,650	52 701	4.4
TOTAL LAND AREA	"	2,278,552	335,270	229,938	220,219	9.7
TOTAL LAND AREA	sq. mile	3,560,238	523,860	359,279	344,092	9.7
WATER AREA	"	291,571	71,000	6,976	68,490	23.5
TOTAL AREA	"	3,851,809	594,860	366,255	412,582	10.7

¹Includes areas of recent burn, cut-over, or windfall, not yet re-stocked.

Source: Dominion Bureau of Statistics, *Canadian Forestry Statistics*.

ACCESSIBLE TIMBER OF MERCHANTABLE SIZE BY SPECIES, ONTARIO, SELECTED YEARS 1946 TO 1959

	1946	1951	1954	1955	1956	1957	1958	1959
Saw Timber (10" D.B.H. and Over)								
(Millions of Feet Board Measure)								
Softwoods								
Spruce	23,900 ¹	23,900 ¹	29,890	35,843	35,737	35,737	35,735	35,900
Balsam			6,236	4,682	4,704	4,704	4,705	4,460
White Pine	5,885 ²	6,100	5,826	10,007	10,087	10,087	10,085	11,315
Red Pine		—	2,197	2,841	2,877	2,878	2,880	3,100
Jack Pine	11,915	11,915	13,159	20,557	20,678	20,677	20,680	21,365
Other Softwoods	861	860	5,070	6,187	6,620	6,619	6,620	7,785
Total	42,561	42,775	62,378	80,117	80,703	80,702	80,705	83,925
Hardwoods								
Poplar	n.a.	5,134	7,696	36,377	36,594	36,594	36,595	41,455
White Birch	n.a.	3,229	3,075	15,654	15,708	15,709	15,705	19,440
Yellow Birch	n.a.	1,660	1,236	10,462	10,464	10,464	10,465	8,395
Maple	n.a.	1,437	1,499	9,745	10,608	10,608	10,610	12,645
Other Hardwoods	11,390	69	603	2,623	4,984	4,984	4,980	6,230
Total	11,390	11,529	14,109	74,861	78,358	78,359	78,355	88,165
Total, All Species	53,951	54,304	76,487	154,978	159,061	159,061	159,060	172,090
Smaller Material (4" to 9" D.B.H.)								
(Thousands of Cords)								
Softwoods								
Spruce	205,800 ¹	205,800 ¹	333,458	283,478	284,460	284,459	284,459	248,835
Balsam			75,339	45,393	45,222	45,222	45,222	41,495
White Pine	—	—	6,036	5,671	5,720	5,720	5,720	6,451
Red Pine	—	—	2,153	2,036	2,056	2,056	2,056	2,227
Jack Pine	55,715	55,715	68,237	91,008	90,487	90,488	90,488	93,504
Other Softwoods	—	—	10,229	9,602	10,826	10,826	10,826	11,980
Total	261,515	261,515	495,452	437,188	438,771	438,771	438,771	404,492
Hardwoods								
Poplar	116,380	116,380	104,308	81,680	82,175	82,175	82,175	90,226
White Birch	—	96,000	77,762	67,776	67,370	67,370	67,370	69,630
Yellow Birch	—	32,000	2,725	3,130	3,286	3,286	3,286	2,700
Maple	—	46,000	8,457	9,166	10,276	10,276	10,276	14,461
Other Hardwoods	182,035	10,000	3,692	5,969	8,135	8,135	8,135	10,827
Total	298,415	300,380	196,944	167,721	171,242	171,242	171,242	187,844
Total, All Species	559,930	561,895	692,396	604,909	610,013	610,013	610,013	592,336

¹Balsam included with Spruce in 1946 and 1951.

²Red Pine included with White Pine in 1946.

n.a. Not available.

Source: Department of Northern Affairs and National Resources, *Forest and Forest Products Statistics and Amendments*; Dominion Bureau of Statistics, *Canadian Forestry Statistics*.

PRINCIPAL STATISTICS OF FORESTRY AND THE FOREST-BASED INDUSTRIES, CANADA AND ONTARIO, 1958

		Establishments	Employees	Salaries and Wages	Cost at Plant of Materials Used	Cost of Fuel and Electricity	Net Value of Products	Gross Value of Products
		No.	No.					
		(Thousands of Dollars)						
Operations in the Woods	Canada	n.a.	67,327	338,284	68,595	—	570,013	638,611
	Ontario	n.a.	11,400 ¹	58,373 ¹	11,785 ¹	—	98,298 ¹	110,138
	Ontario as % of Canada		16.9	17.3	17.2		17.2	17.2
The Pulp and Paper Industry	Canada	128	64,084	307,416	597,805	105,797	702,951	1,406,553
	Ontario	41	20,218	97,642	201,973	31,176	215,632	448,781
	Ontario as % of Canada		31.5	31.8	33.8	29.5	30.7	31.9
The Paper-Using Industries	Canada	434	28,851	102,163	285,351	4,571	207,742	494,781 ²
	Ontario	217	15,729	57,887	154,018	2,478	113,617	268,692 ²
	Ontario as % of Canada		54.5	56.7	54.0	54.2	54.7	54.3
The Lumber Industry	Canada	5,769	47,763	142,700	300,343	9,204	236,753	546,300
	Ontario	802	5,186	13,182	33,673	827	23,738	58,238
	Ontario as % of Canada		10.9	9.2	11.2	9.0	10.0	10.7
The Wood-Using Industries	Canada	4,079	73,159	226,882	417,120	11,629	368,545	797,294 ²
	Ontario	1,355	27,308	86,896	136,694	3,951	137,034	277,679 ²
	Ontario as % of Canada		37.3	38.3	32.8	34.0	37.2	34.8
TOTAL	Canada		281,184	1,117,445	1,669,214	131,201	2,086,004	3,883,539
	Ontario		79,841	313,980	538,143	38,432	588,319	1,163,528
	Ontario as % of Canada		28.4	28.1	32.2	29.3	28.2	30.0

n.a. Not available

¹Estimated by the Department of Economics.

²Selling value of factory shipments.

VOLUME AND VALUE OF PRIMARY FOREST PRODUCTION, CANADA, ONTARIO, QUEBEC AND BRITISH COLUMBIA, 1940 TO 1958

	Volume					Value				
	Canada	Ontario	Ontario as % of Canada	Quebec	British Columbia	Canada	Ontario	Ontario as % of Canada	Quebec	British Columbia
	(000's cu. ft.)			(000's cu. ft.)		(000's)			(000's)	
1940	2,664,365	466,319	17.5	904,532	666,130	202,083	41,464	20.5	72,787	48,653
1941	2,711,588	470,338	17.3	918,745	668,856	225,616	45,636	20.2	80,142	54,747
1942	2,625,305	492,514	18.8	924,491	579,591	249,510	55,516	22.2	92,287	52,643
1943	2,571,335	476,102	18.5	920,621	562,283	279,828	59,017	21.1	107,383	56,915
1944	2,650,208	446,256	16.8	997,669	568,967	330,820	65,293	19.7	131,980	64,417
1945	2,692,200	453,756	16.9	1,071,795	564,616	364,237	74,076	20.3	159,354	64,722
1946	2,821,935	530,120	18.8	1,072,959	580,353	435,706	92,720	21.3	178,722	82,780
1947	3,104,214	593,475	19.1	1,054,300	763,089	559,821	122,235	21.8	196,712	145,108
1948	3,069,265	565,229	18.4	1,054,338	782,871	579,015	121,231	20.9	211,297	149,578
1949	2,685,917	455,483	17.0	857,493	736,174	491,987	97,092	19.7	163,314	134,904
1950	3,023,465	516,316	17.1	978,406	832,535	613,046	111,673	18.2	206,482	184,809
1951	3,436,463	600,397	17.5	1,141,649	862,195	821,022	144,708	17.6	282,453	229,402
1952	3,205,383	564,349	17.6	994,916	910,058	763,189	141,114	18.5	246,008	232,747
1953	3,078,066	504,179	16.4	941,450	965,368	704,539	122,224	17.3	227,839	227,452
1954	3,122,313	497,261	15.9	1,004,188	996,064	728,370	122,759	16.9	239,720	245,400
1955	3,280,070	542,631	16.5	984,111	1,080,758	829,573	144,477	17.4	249,501	300,614
1956	3,463,304	547,354	15.8	1,074,032	1,109,919	939,143	153,273	16.3	288,668	338,672
1957	3,172,166	565,010	17.8	905,446	1,042,561	823,054	155,356	18.9	231,929	301,798
1958	2,854,670	483,544	16.9	816,797	998,827	638,611	110,138	17.2	192,951	221,885

Source: Dominion Bureau of Statistics, *Operations in the Woods*.

PRINCIPAL STATISTICS OF THE PULP AND PAPER INDUSTRY, ONTARIO, SELECTED YEARS 1939 TO 1958

	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	(\$000's)	(\$000's)	(\$000's)	(\$000's)	(\$000's)
1939	38	9,579	14,715	6,441	26,596	32,449	65,486
1946	43	14,472	32,791	12,688	71,782	77,982	162,452
1951	44	18,348	69,105	20,980	152,196	213,866	387,042
1955	41	19,108	83,226	24,874	167,313	209,562	401,749
1956	41	20,316	91,290	27,826	188,608	227,429	443,863
1957	42	20,686	96,505	30,960	197,469	217,526	445,956
1958	41	20,218	97,642	31,176	201,973	215,632	448,781
% Change 1958/1957	-2.4	-2.3	1.2	0.7	2.3	-0.9	0.6

Source: Dominion Bureau of Statistics, *The Pulp and Paper Industry*.

APPARENT PRODUCTION OF PULPWOOD, ONTARIO, SELECTED YEARS 1946 TO 1958

	1946		1951		1956		1957		1958		Per Cent Change 1958/1957	
	(000's Cords)	(\$000's)	(000's Cords)	(\$000's)	(000's Cords)	(\$000's)	(000's Cords)	(\$000's)	(000's Cords)	(\$000's)	Volume	Value
Used in Province	2,402	44,471	3,419	85,439	3,664	99,483	3,661	105,378	3,519	104,547	-3.9	-0.8
Used Elsewhere in Canada	31	583	18	545	97	1,816	88	1,652	78	1,629	-11.4	-1.4
Exported	919	15,209	981	21,510	597	14,417	628	15,450	496	12,375	-21.0	-20.0
Obtained Elsewhere in Canada	549	11,585	698	20,081	493	13,137	533	13,690	440	11,985	-17.4	-14.1
Imported	14	196	14	295	24	412	25	352	30	525	20.0	49.1
Apparent Production	2,789	48,482	3,706	87,118	3,841	102,167	3,819	108,438	3,624	106,041	-5.1	-2.2

Source: Dominion Bureau of Statistics, *The Pulp and Paper Industry*.

WOOD-PULP PRODUCTION, CANADA, ONTARIO, QUEBEC AND BRITISH COLUMBIA, SELECTED YEARS 1939 TO 1958

	Canada		Ontario		Quebec		British Columbia	
	(Tons)	(\$000's)	(Tons)	(\$000's)	(Tons)	(\$000's)	(Tons)	(\$000's)
1939	4,166,301	97,132	1,158,576	27,631	2,119,183	49,027	321,132	6,197
1946	6,615,410	287,624	1,837,975	84,049	3,460,853	140,931	520,779	24,217
1951	9,314,849	727,880	2,484,551	219,571	4,282,568	298,100	924,154	100,898
1955	10,150,547	693,403	2,602,298	196,236	4,491,139	280,172	1,363,761	107,638
1956	10,733,744	706,233	2,753,241	178,013	4,809,011	296,885	1,423,913	120,495
1957	10,425,295	706,195	2,746,177	207,306	4,605,853	286,727	1,375,848	97,155
1958	10,137,454	703,366	2,736,456	217,477	4,223,227	256,238	1,453,854	103,850
% Change 1958/1957	-2.8	-0.04	-0.4	4.9	-8.3	-10.6	5.7	10.7

Source: Dominion Bureau of Statistics, *The Pulp and Paper Industry*.

PAPER PRODUCTION BY KINDS, ONTARIO, SELECTED YEARS 1946 TO 1958

	1946		1951		1956		1957		1958		Per Cent Change 1958/1957	
	(Tons)	(\$000's)	(Tons)	(\$000's)	(Tons)	(\$000's)	(Tons)	(\$000's)	(Tons)	(\$000's)	Volume	Value
Newsprint	1,073,145	71,841	1,285,925	133,024	1,471,819	169,629	1,487,439	172,068	1,465,264	169,445	-1.5	-1.5
Book and Writing	118,609	16,628	168,941	38,793	224,345	55,019	226,086	56,387	233,919	59,201	3.5	5.0
Wrapping	41,269	5,651	66,741	15,055	74,418	17,882	68,449	16,436	71,389	17,943	4.3	9.2
Paper Boards	309,895	21,332	442,490	51,425	507,565	66,779	491,399	65,477	515,843	67,930	5.0	3.7
Tissue	20,193	3,612	36,647	9,892	45,536	13,138	49,462	13,494	53,050	12,834	7.3	-4.9
Other	16,426	1,866	18,491	3,730	13,818	1,999	14,673	1,989	15,756	1,930	7.4	-3.0
Total	1,579,537	120,930	2,019,235	251,919	2,337,501	324,446	2,337,508	325,851	2,355,221	329,283	0.8	1.1

Source: Dominion Bureau of Statistics, *The Pulp and Paper Industry*.

PRINCIPAL STATISTICS OF THE PAPER-USING INDUSTRIES, ONTARIO, SELECTED YEARS 1946 TO 1958

		Establishments	Employees	Salaries and Wages	Cost of Materials Used	Cost of Fuel and Electricity	Net Value of Products	Gross Value of Products ¹
		No.	No.	(\$000's)	(\$000's)	(\$000's)	(\$000's)	(\$000's)
1946	Paper Boxes and Bags	87	6,763	9,690	22,581	324	18,864	41,769
	Roofing Paper	6	608	906	3,758	114	3,943	7,815
	Miscellaneous Paper Goods	102	535	8,656	22,859	469	20,667	43,995
	Total	195	7,906	19,252	49,198	907	43,474	93,579
1951	Paper Boxes and Bags	103	7,280	18,974	55,639	643	38,099	94,380
	Roofing Paper	6	540	1,428	5,221	165	6,202	11,589
	Miscellaneous Paper Goods	114	6,277	16,817	48,388	778	37,184	86,350
	Total	223	14,097	37,219	109,248	1,586	81,485	192,319
1955	Paper Boxes and Bags	104	7,447	24,022	66,354	797	44,352	111,316
	Roofing Paper	7	621	2,105	6,756	200	7,202	13,792
	Miscellaneous Paper Goods	119	6,735	21,645	58,685	1,093	48,561	108,381
	Total	230	14,803	47,772	131,795	2,090	100,115	233,489
1956	Paper Boxes and Bags	106	7,988	26,543	76,611	940	48,720	125,459
	Roofing Paper	7	571	2,037	6,549	201	6,021	13,166
	Miscellaneous Paper Goods	109	6,858	22,987	61,614	1,167	44,827	107,441
	Total	222	15,417	51,567	144,774	2,308	99,568	246,066
1957	Paper Boxes and Bags	106	8,240	28,497	77,149	1,072	49,862	127,787
	Roofing Paper	6	446	1,666	6,017	188	5,165	11,269
	Miscellaneous Paper Goods	111	7,051	24,788	64,196	1,296	49,162	113,593
	Total	223	15,737	54,951	147,362	2,556	104,189	252,649
1958	Paper Boxes and Bags	107	8,417	30,773	83,485	1,108	54,017	138,059
	Roofing Paper	5	460	1,847	6,146	178	4,471	10,335
	Miscellaneous Paper Goods	105	6,852	25,267	64,387	1,192	55,129	120,298
	Total	217	15,729	57,887	154,018	2,478	113,617	268,692

¹Selling value of factory shipments has been substituted for gross value of products since 1952.

Source: Dominion Bureau of Statistics, *Paper Box and Bag Industry*, *The Roofing Paper Industry*, *The Miscellaneous Paper Goods Industry*; memorandum from Dominion Bureau of Statistics.

PRINCIPAL STATISTICS OF THE LUMBER INDUSTRY¹, ONTARIO, SELECTED YEARS 1939 TO 1958

	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	(\$000's)	(\$000's)	(\$000's)	(\$000's)	(\$000's)
1939	741	5,762	4,072	114	8,925	6,951	16,012
1946	1,022	7,635	8,842	302	22,196	19,028	41,526
1951	1,340	9,265	17,193	901	40,014	35,157	76,072
1954	1,112	7,550	16,249	840	37,518	30,928	69,286
1955	1,039	7,312	16,596	851	36,438	32,583	69,872
1956	961	7,387	17,614	1,099	41,121	32,449	74,669
1957	886	6,414	16,433	886	38,084	28,859	67,828
1958	803	5,186	13,181	827	33,673	23,738	58,238

¹Includes not only the production of sawn lumber of all dimensions, but that of shingles, laths, sawn ties, hardwood squares, box shooks, staves and heading, other sawn products and barking of pulpwood in plants other than pulp mills. Operations in the woods are not included.

Source: Dominion Bureau of Statistics, *The Lumber Industry* and *The Lumber Industry in Ontario, A Special Statement*.

VOLUME AND VALUE OF SAWN LUMBER, CANADA, ONTARIO, QUEBEC AND BRITISH COLUMBIA, 1954 TO 1958

	Volume			Value				
	Canada	Ontario	Ont. as % of Can.	Quebec	British Columbia	Canada	Ontario	Ont. as % of Can.
	(M ft. BM)			(M ft. BM)		(\$000's)		(\$000's)
1954	7,243,855	721,742	10.0	1,099,036	4,378,695	482,912	55,512	11.5
1955	7,920,033	759,976	9.6	1,025,094	4,914,285	541,563	58,654	10.8
1956	7,739,603	776,745	10.0	1,177,515	4,734,970	539,262	62,660	11.6
1957	7,099,758	671,551	9.5	1,064,217	4,412,387	466,228	54,318	11.7
1958	7,719,080	583,315	7.6	910,513	4,849,965	459,901	46,231	10.1

Source: Dominion Bureau of Statistics, *The Lumber Industry*, *The Lumber Industry in Ontario*, *The Lumber Industry in Quebec*, and *The Lumber Industry in British Columbia*.

PRODUCTION OF SAWN LUMBER BY SPECIES, ONTARIO, 1954 TO 1958

	1954		1955		1956		1957		1958	
	(M ft. BM)	(\$000's)	(M ft. BM)	(\$000's)	(M ft. BM)	(\$000's)	(M ft. BM)	(\$000's)	(M ft. BM)	(\$000's)
White Pine	204,081	18,741	203,026	19,007	196,537	18,915	190,405	18,012	141,059	13,568
Red Pine	47,820	4,024	34,802	2,970	41,362	3,786	36,625	3,231	26,374	2,292
Jack Pine	114,015	7,139	140,285	8,928	135,967	8,799	107,477	7,049	115,072	7,192
Hemlock	42,449	2,583	45,979	2,909	58,026	3,853	36,520	2,357	24,675	1,627
Spruce	163,387	10,461	179,123	11,590	169,653	12,018	131,997	9,203	125,128	7,931
Maple	48,697	4,620	51,853	5,095	62,184	6,397	60,827	5,936	52,267	5,274
Birch, yellow	37,771	3,596	31,551	3,112	29,405	2,978	23,598	2,472	27,215	3,151
Elm	13,818	936	15,746	1,080	17,436	1,218	18,387	1,298	16,645	1,211
Basswood	11,688	1,006	12,167	1,031	14,772	1,312	11,575	1,001	9,236	813
Beech	3,324	212	3,687	233	4,814	315	5,045	310	3,865	238
Ash	2,149	183	2,384	193	3,713	288	3,818	321	2,624	236
Birch, white	3,889	291	4,035	304	3,785	277	7,946	743	6,532	585
Poplar, Aspen	15,415	716	18,804	908	19,924	970	16,863	812	12,698	630
Cedar	3,326	200	4,021	249	5,109	317	4,566	298	4,358	296
Oak	5,456	496	6,398	602	7,507	740	5,684	537	4,415	414
Balsam	3,353	214	4,585	309	5,193	348	8,773	609	9,738	659
Chestnut	4	1	2	—	3	—	1	—		
Tamarack	318	19	628	45	306	21	273	17		
Cherry	450	45	572	58	669	73	698	75		
Butternut	105	9	55	5	52	4	74	6		
Hickory	116	9	185	16	138	11	294	21		
Walnut	83	10	81	10	61	8	67	8	1,414	114
Willow	17	1	7	—	64	4	30	2		
Tulip	4	—	—	—	1	—	3	—		
Sycamore	—	—	—	—	2	—	5	—		
Unspecified	7	—	—	—	62	8	—	—		
Total	721,742	55,512	759,976	58,654	776,745	62,660	671,551	54,318	583,315	46,231

Source: Dominion Bureau of Statistics, *The Lumber Industry and The Lumber Industry in Ontario*.

NUMBER AND VALUE OF SHINGLES, LATHS AND TIES SAWN, ONTARIO, 1951 AND 1954 TO 1958

	Shingles		Laths		Ties	
	Number	Value	Number	Value	Number	Value
	(squares) ¹	(\$000's)	(000's)	(\$000's)	(000's)	(\$000's)
1951	1,552	10	9,664	100	1,443	2,436
1954	502	3	18,284	224	1,762	3,405
1955	488	4	5,919	65	1,378	2,585
1956	427	2	4,185	44	1,487	2,901
1957	56	*	223	3	1,664	3,244
1958	287	2	641	8	1,210	2,478

*Less than \$500.

¹A square consists of a sufficient number of shingles to cover 100 square feet.

Source: Dominion Bureau of Statistics, *The Lumber Industry and The Lumber Industry in Ontario*.

PRINCIPAL STATISTICS OF THE WOOD-USING INDUSTRIES, ONTARIO, SELECTED YEARS 1946 TO 1958

	Establishments	Employees	Earnings	Cost of Materials Used	Cost of Fuel and Electricity	Net Value of Products	Gross Value of Products ¹
	No.	No.	(\$000's)	(\$000's)	(\$000's)	(\$000's)	(\$000's)
1946	1,049	23,900	33,821	52,289	1,495	52,775	106,559
1951	1,332	27,392	62,664	140,129	2,581	99,999	206,708
1954	1,464	27,445	73,187	108,333	3,244	114,412	225,357
1955	1,470	28,649	79,754	126,743	3,527	126,717	257,752
1956	1,477	29,726	86,634	142,565	3,842	135,047	279,253
1957	1,498	28,751	87,706	137,707	4,073	134,117	276,079
1958	1,355	27,308	86,896	136,694	3,951	137,034	277,679

¹Selling value of factory shipments has been substituted for gross value of products since 1952.

Note: Statistics for 1946 are not strictly comparable with those for later years as manufactures of springs and mattresses are now included with the furniture group (a subsection of the wood-using industries) whereas until 1947 they were shown with another industrial group.

Source: Dominion Bureau of Statistics, *General Review of the Wood-Using Industries* and memorandum.

DEPLETION OF FOREST RESOURCES, ONTARIO, SELECTED YEARS 1946 TO 1958

(Thousands of Cubic Feet)					
	Total Utilization and Fire Damage	Forest Production	% of Total	Forest Fire	% of Total
1946	535,779	530,120	98.9	5,659	1.1
1951	629,987	600,397	95.3	29,590	4.7
1954	522,170	497,261	95.2	24,909	4.8
1955	809,804	542,031	66.9	267,773	33.1
1956	702,732	547,354	77.9	155,378	22.1
1957	586,131	565,010	96.4	21,121	3.6
1958	494,730	483,544	97.7	11,186	2.3

Note: Fire losses refer to merchantable timber. No reliable estimates are available on the depletion resulting from natural mortality and epidemic outbreaks of insects.

Source: Ontario Department of Lands and Forests, *Annual Report*; Dominion Bureau of Statistics, *Operations in the Woods*.

NUMBER OF FOREST FIRES AND TOTAL AREA BURNED, ONTARIO, SELECTED YEARS 1946 TO 1960

	Total Number of Fires	Total Area Burned
		(acres)
1946	1,739	76,769
1951	904	101,243
1954	881	54,693
1955	2,252	396,423
1956	1,017	226,212
1957	1,671	46,651
1958	1,558	36,652
1959	1,029	5,281
1960 (Prel.)	956	31,386

Note: Nearly all forest fires occur between April 1 and October 31 in any year.

Source: Ontario Department of Lands and Forests, *Annual Report*.

FOREST FIRES BY SIZE OF BURNT-OVER AREA, ONTARIO, SELECTED YEARS 1946 TO 1960

		¼ Acre Under	Over ¼ to 5 Acres	Over 5 to 10 Acres	Over 10 to 100 Acres	Over 100 to 500 Acres	Over 500 to 1,000 Acres	Over 1,000 to 10,000 Acres	Over 10,000 Acres	Total
1946	No.	460	784	129	233	78	13	12	—	1,739
	%	(28.2)	(45.1)	(7.4)	(13.4)	(4.5)	(0.7)	(0.7)	—	(100.0)
1951	No.	329	383	45	115	21	5	4	2	905
	%	(36.4)	(43.3)	(5.0)	(12.7)	(2.3)	(0.6)	(0.5)	(0.2)	(100.0)
1954	No.	354	392	36	81	9	2	5	2	881
	%	(40.2)	(44.5)	(4.1)	(9.2)	(1.0)	(0.2)	(0.6)	(0.2)	(100.0)
1955	No.	846	1,004	120	188	52	16	18	8	2,252
	%	(37.6)	(44.6)	(5.3)	(8.3)	(2.3)	(0.7)	(0.8)	(0.4)	(100.0)
1956	No.	395	456	46	66	26	4	21	3	1,017
	%	(38.8)	(44.8)	(4.5)	(6.5)	(2.6)	(0.4)	(2.1)	(0.3)	(100.0)
1957	No.	575	741	120	187	37	7	3	1	1,671
	%	(34.4)	(44.3)	(7.2)	(11.2)	(2.2)	(0.4)	(0.2)	(0.1)	(100.0)
1958	No.	490	753	108	178	20	4	5	—	1,558
	%	(31.5)	(48.3)	(6.9)	(11.4)	(1.3)	(0.3)	(0.3)	—	(100.0)
1959	No.	470	434	59	56	9	1	—	—	1,029
	%	(45.7)	(42.2)	(5.7)	(5.4)	(0.9)	(0.1)	—	—	(100.0)
1960 (Prel.)	No.	411	400	51	61	23	4	6	—	956
	%	(43.0)	(41.9)	(5.3)	(6.4)	(2.4)	(0.4)	(0.6)	—	(100.0)

Source: Ontario Department of Lands and Forests, *Annual Report*.

FOREST FIRES BY CAUSE, ONTARIO, SELECTED YEARS 1946 TO 1960

		Settlers	Campers	Railways	Lightning	Logging Operations	Mining Operations	Smokers	Road Construction	Incendiary	Prospectors	Miscellaneous	Unknown	Total
1946	No.	80	481	249	303	68	11	383	21	31	2	68	42	1,739
	%	(4.6)	(27.7)	(14.3)	(17.4)	(3.9)	(0.7)	(22.0)	(1.2)	(1.8)	(0.1)	(3.9)	(2.4)	(100.0)
1951	No.	74	191	139	151	38	12	173	28	16	—	74	8	904
	%	(8.2)	(21.1)	(15.4)	(16.7)	(4.2)	(1.3)	(19.1)	(3.1)	(1.8)	—	(8.2)	(0.9)	(100.0)
1954	No.	42	221	82	252	13	3	147	11	25	2	74	9	881
	%	(4.8)	(25.1)	(9.3)	(28.6)	(1.5)	(0.3)	(16.7)	(1.3)	(2.8)	(0.2)	(8.4)	(1.0)	(100.0)
1955	No.	148	390	189	928	53	11	298	13	31	11	148	32	2,252
	%	(6.6)	(17.3)	(8.4)	(41.2)	(2.3)	(0.5)	(13.2)	(0.6)	(1.4)	(0.5)	(6.6)	(1.4)	(100.0)
1956	No.	49	196	122	302	22	6	145	34	8	8	123	2	1,017
	%	(4.8)	(19.3)	(12.0)	(29.7)	(2.2)	(0.6)	(14.2)	(3.3)	(0.8)	(0.8)	(12.1)	(0.2)	(100.0)
1957	No.	125	379	176	275	39	7	342	73	26	3	194	32	1,671
	%	(7.5)	(22.7)	(10.5)	(16.5)	(2.3)	(0.4)	(20.4)	(4.4)	(1.6)	(0.2)	(11.6)	(1.9)	(100.0)
1958	No.	123	325	149	219	17	1	371	63	43	1	229	17	1,558
	%	(7.9)	(20.9)	(9.6)	(14.1)	(1.1)	*	(23.8)	(4.0)	(2.8)	*	(14.7)	(1.1)	(100.0)
1959	No.	52	323	67	242	25	2	159	12	13	4	116	14	1,029
	%	(5.0)	(31.4)	(6.5)	(23.5)	(2.4)	(0.2)	(15.5)	(1.2)	(1.3)	(0.4)	(11.3)	(1.3)	(100.0)
1960 (Prel.)	No.	55	265	49	310	20	2	116	18	12	1	97	11	956
	%	(5.8)	(27.7)	(5.1)	(32.4)	(2.1)	(0.2)	(12.1)	(1.9)	(1.3)	(0.1)	(10.1)	(1.2)	(100.0)

*Less than 0.05 per cent.

Source: Ontario Department of Lands and Forests, *Annual Report*.

C—Fishing, Trapping and Fur Farming

LABOUR FORCE AND CAPITAL EQUIPMENT, COMMERCIAL FISHING, ONTARIO, SELECTED YEARS 1939 TO 1959

	Fishermen	Fishing Boats		Fishing Gear ¹	Freezers and Ice Houses	Wharves and Piers	Value of all Boats, Gear and Shore Installations
	No.	40 ft. and over	Under 40 ft.				
	No.	No.	No.	(\$000's)	No.	No.	(\$000's)
1939	4,206	92	2,010	1,514	313	395	3,219
1946	4,244	107	2,205	1,952	525	437	4,764
1951	3,833	126	1,981	3,129	476	416	6,985
1954	3,657	214	1,407	3,667	482	456	9,176
1955	3,483	224	1,338	3,683	442	447	9,227
1956	3,135	202	1,320	3,585	426	437	8,892
1957	3,066	211	1,321	3,507	412	404	8,676
1958	3,224	212	1,270	3,493	464	425	9,215
1959	3,527	234	1,680	4,078	564	491	10,557

¹Includes nets, lines, traps, etc.

Source: Ontario Department of Lands and Forests, *Annual Report*.

QUANTITY LANDED AND MARKETED VALUE OF FISH, CANADA AND ONTARIO, SELECTED YEARS 1939 TO 1959

	Quantity Landed			Marketed Value ¹		
	Canada (Inland Fish)	Ontario	Ont. as % of Can. (Inland)	Canada (Inland Fish)	Ontario	Ont. as % of Can. (Inland)
	(000 lb.)	(000 lb.)		(\$000's)	(\$000's)	
1939	89,309	33,847	37.9	6,104	3,010	49.4
1946	91,275	32,997	36.2	14,609	6,297	43.1
1951	98,354	30,969	31.5	20,889	7,925	37.9
1954	116,187	47,680	41.0	18,572	7,889	42.1
1955	118,959	45,634	38.4	18,636	7,631	40.9
1956	124,596	59,710	47.9	20,556	8,918	43.4
1957	119,589	51,109	42.7	19,249	7,927	41.2
1958	114,613	47,175	41.2	20,610	8,180	39.7
1959	n.a.	48,992	n.a.	n.a.	5,474	n.a.

n.a. Not available.

¹In conformity with Dominion Bureau of Statistics procedure, value of production (marketed value) in Ontario is obtained by adding 12½ per cent to landed value.

Source: Dominion Bureau of Statistics, *Fisheries Statistics of Canada* and Ontario Department of Lands and Forests.

COMMERCIAL CATCH AND MARKETED VALUE¹ OF FISH BY SPECIES, ONTARIO, SELECTED YEARS 1939 TO 1959

	1939		1946		1951		1956		1957		1958		1959	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	(000 lb.)	(\$000's)	(000 lb.)	(\$000's)	(000 lb.)	(\$000's)	(000 lb.)	(\$000's)	(000 lb.)	(\$000's)	(000 lb.)	(\$000's)	(000 lb.)	(\$000's)
Perch	1,935	163	2,973	502	3,375	851	11,843	1,069	12,068	955	16,298	2,371	19,968	1,358
Yellow Pickerel	2,390	196	2,716	654	4,025	1,181	11,672	2,146	10,609	2,598	7,826	2,353	4,653	1,475
Blue Pickerel	6,158	419	1,972	398	4,102	919	12,020	2,028	6,398	1,295	834	243	50	17
Whitefish	6,367	866	4,451	1,388	7,180	2,780	4,049	1,578	3,226	1,203	3,277	1,157	3,184	878
Smelt	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4,016	249	4,666	228	4,968	407	7,060	231
Trout	5,076	731	2,514	907	1,975	792	641	289	498	224	622	216	522	183
Other	11,921	635	18,351	2,448	10,312	1,402	15,469	1,559	13,644	1,424	13,350	1,433	13,555	1,332
Total	33,847	3,010	32,997	6,297	30,969	7,925	59,710	8,918	51,109	7,927	47,175	8,180	48,992	5,474

¹In conformity with Dominion Bureau of Statistics procedure, marketed value (value of production) in Ontario is obtained by adding 12½ per cent to landed value.
Source: Ontario Department of Lands and Forests, *Annual Report*.

NUMBER AND VALUE OF PELTS SOLD, CANADA AND ONTARIO, SELECTED YEARS 1939 TO 1960

Year Ending June 30	Number of Pelts			Value of Pelts		
	Canada	Ontario	Ontario as % of Canada	Canada	Ontario	Ontario as % of Canada
	(000's)	(000's)		(\$000's)	(\$000's)	
1939	6,492	1,038	16.0	14,287	2,539	17.8
1946	7,593	1,241	16.3	43,871	10,822	24.7
1951	7,479	1,042	13.9	31,134	8,211	26.4
1956	7,727	960	12.4	28,052	7,137	25.4
1957	6,919	1,038	15.0	25,592	5,563	21.7
1958	6,440	1,035	16.1	26,335	6,712	25.5
1959	5,371	946	17.6	25,801	7,079	27.4
1960	n.a.	928	n.a.	n.a.	7,282	n.a.

Source: Dominion Bureau of Statistics, *Canada Year Book and Fur Production*.

DISTRIBUTION OF FUR PRODUCTION BETWEEN TRAPLINES AND FUR FARMS, ONTARIO, SELECTED YEARS 1939 TO 1960

Year Ending June 30	Trapline Production		Fur Farm Production		Total Production
	Amount	% of Total	Amount	% of Total	Amount
	(000's)		(000's)		(000's)
1939	964	92.9	74	7.1	1,038
	1,597	62.9	942	37.1	2,539
1946	1,150	92.7	91	7.3	1,241
	7,792	72.0	3,030	28.0	10,822
1951	886	84.9	157	15.1	1,042
	5,214	63.5	2,997	36.5	8,211
1956	787	81.9	174	18.1	960
	2,990	41.9	4,147	58.1	7,137
1957	789	76.0	249	24.0	1,038
	2,576	46.3	2,987	53.7	5,563
1958	791	76.4	244	23.6	1,035
	2,713	40.4	3,998	59.6	6,712
1959	680	71.9	266	28.1	946
	2,445	34.5	4,633	65.5	7,079
1960	641	69.1	287	30.9	928
	2,831	38.9	4,451	61.1	7,282

Source: Ontario Department of Lands and Forests, *Annual Report*; Dominion Bureau of Statistics, *Fur Production*.

NUMBER AND VALUE OF PELTS FROM TRAPLINES BY SPECIES, ONTARIO, SELECTED YEARS 1939 TO 1960

		Year Ending June 30							
		1939	1946	1951	1956	1957	1958	1959	1960
Beaver	No.	16,934	42,196	87,608	113,200	113,036	141,263	120,121	111,235
	\$	242,156	2,142,713	2,070,177	1,386,700	1,254,700	1,483,262	1,249,258	1,479,426
Mink	No.	62,754	42,938	37,653	32,954	35,776	48,205	45,732	47,536
	\$	490,109	1,520,864	1,033,575	616,240	475,821	506,153	521,345	629,852
Muskrat	No.	687,711	824,924	656,388	546,466	564,511	527,318	463,895	415,621
	\$	701,465	2,928,480	1,700,045	595,648	536,285	395,489	389,672	336,653
Otter	No.	3,979	5,202	6,819	7,032	6,561	8,425	6,834	6,321
	\$	54,751	187,272	186,568	184,238	170,914	189,562	155,132	163,714
Fisher	No.	1,353	1,626	798	3,240	2,368	2,930	2,423	3,020
	\$	46,083	96,471	27,587	73,062	41,203	47,759	38,647	57,984
Raccoon	No.	10,936	24,117	18,518	31,346	28,413	26,767	10,450	19,449
	\$	25,153	78,380	47,221	68,961	45,461	34,797	14,108	39,092
Other	No.	180,333	208,724	77,846	52,370	38,001	36,267	30,734	37,911
	\$	37,283	837,820	148,429	64,674	51,425	56,466	77,041	124,453
Total	No.	964,000	1,149,727	885,630	786,608	788,666	791,175	680,189	641,093
	\$	1,597,000	7,792,000	5,213,602	2,989,523	2,575,809	2,713,488	2,445,203	2,831,174

Source: Dominion Bureau of Statistics, *Fur Production*.

NUMBER OF LICENSED FUR FARMS, ONTARIO, SELECTED YEARS 1939 TO 1960

Year (as at Dec. 31)	Number of Farms
1939	1,920
1946	1,502
1951	914
1952	769
1953	631
1954	549
1955	529
1956	542
1957	520
1958	513
1959	495
1960	500

Note: The number of fur farms is based on the number of fur farmers' licences issued by the Ontario Department of Lands and Forests. Farms raising chinchilla and nutria exclusively do not require licences and, therefore, are not included in the total. However, these account for only a small percentage of the total value of production.

Source: Ontario Department of Lands and Forests, *Annual Report*.

NUMBER AND VALUE OF PELTS EXPORTED, ONTARIO, SELECTED YEARS 1939 TO 1960

Year Ending June 30	No. of Pelts Exported (000's)	% of Ontario Production	Value of Exports (\$000's)	% of Ontario Value of Production
1939	764	73.6	1,994	78.5
1946	965	77.8	8,821	81.5
1951	927	88.9	7,495	91.3
1956	769	80.0	6,233	87.3
1957	788	76.0	4,577	82.2
1958	879	85.4	5,936	89.2
1959	831	88.1	6,414	93.6
1960	821	88.5	n.a.	n.a.

Source: Ontario Department of Lands and Forests, *Annual Report*.

D—Mining

GROSS VALUE OF MINERAL PRODUCTION, CANADA AND ONTARIO, 1939 AND 1945 TO 1960

	Canada	Ontario	Ontario as % of Canada
	\$	\$	
1939	474,602,059	232,519,948	49.0
1945	498,755,181	216,544,882	43.4
1946	502,816,251	191,544,429	38.1
1947	644,869,975	249,797,671	38.7
1948	820,248,865	294,239,673	35.9
1949	901,110,026	323,368,644	35.9
1950	1,045,450,073	366,801,525	35.1
1951	1,245,483,595	444,667,203	35.7
1952	1,285,342,353	444,669,412	34.6
1953	1,336,303,503	465,877,093	34.9
1954	1,488,382,091	496,747,571	33.4
1955	1,795,310,796	583,954,682	32.5
1956	2,084,905,554	650,823,362	31.2
1957	2,190,322,392	748,824,322	34.2
1958	2,100,739,038	789,601,868	37.6
1959	2,309,020,511	970,762,201	40.3
1960 ¹	2,476,240,506	984,024,964	39.7

¹Estimated.

Source: Dominion Bureau of Statistics, *General Review of the Mining Industry*.

GROSS VALUE OF MINERAL PRODUCTION BY CLASSES, ONTARIO, 1939 AND 1945 TO 1960

	Metallics	Non-Metallics	Fuels	Structural Materials	Total
		\$	\$	\$	\$
1939	208,192,513	3,807,383	7,663,358	12,856,694	232,519,948
1945	188,242,390	5,757,814	5,107,126	17,437,552	216,544,882
1946	157,044,464	5,258,637	4,948,247	24,293,081	191,544,429
1947	207,550,402	6,114,273	5,685,941	30,447,055	249,797,671
1948	244,480,700	6,983,706	7,567,206	35,208,061	294,239,673
1949	265,762,572	7,122,540	9,728,337	40,755,195	323,368,644
1950	302,552,294	10,450,939	4,096,375	49,701,917	366,801,525
1951	366,793,827	13,615,157	4,055,342	60,202,877	444,667,203
1952	360,897,380	13,228,101	3,962,233	66,581,698	444,669,412
1953	370,596,091	13,183,283	4,878,423	77,219,296	465,877,093
1954	395,202,859	13,161,184	5,398,074	82,985,454	496,747,571
1955	470,910,013	14,408,742	5,940,478	92,695,449	583,954,682
1956	521,311,425	18,726,564	6,698,419	104,086,954	650,823,362
1957	600,980,821	20,183,292	7,488,338	120,171,871	748,824,322
1958	629,295,438	20,356,396	8,597,755	131,352,279	789,601,868
1959	806,143,529	25,245,667	9,710,784	129,662,221	970,762,201
1960 ¹	825,375,144	24,775,640	8,857,500	125,016,680	984,024,964

¹Estimated.

Source: Dominion Bureau of Statistics, *General Review of the Mining Industry*.

GROSS VALUE OF MINERAL PRODUCTION BY INDIVIDUAL MINERALS, ONTARIO, 1946 AND 1958 TO 1960

	1946	1958	1959	1960 ¹	Per Cent Change
	\$	\$	\$	\$	1960/1946
METALLICS					
Bismuth	—	26,779	37,748	35,394	—
Calcium	68,720	31,256	76,409	88,770	29.2
Cobalt	70,215	4,866,767	5,414,246	5,234,560	*
Copper	22,502,528	71,267,895	110,547,037	122,468,767	444.2
Gold	66,639,988	92,307,146	90,083,383	92,461,863	38.7
Iron Ore	6,822,947	36,851,421	50,830,404	47,867,675	601.6
Lead	47,199	285,502	341,902	165,075	249.7
Magnesium	75,538	2,747,755	2,202,392	4,280,232	*
Nickel	45,385,155	177,168,918	240,053,265	293,255,734	546.1
Platinum	7,672,791	9,481,371	11,015,189	18,134,766	136.4
Other Platinum Metals	5,162,801	4,840,072	5,916,989	9,538,921	84.8
Selenium	492,503	677,213	709,800	1,050,600	113.3
Silver	2,078,882	8,520,624	9,252,763	8,652,725	316.2
Tellurium	21,868	11,376	14,835	25,375	16.0
Thorium	—	—	105,676	381,314	—
Uranium (U308)	—	210,149,700	268,529,993	209,567,628	—
Zinc	3,329	10,061,643	11,011,498	12,165,745	*
Total	157,044,464	629,295,438	806,143,529	825,375,144	425.6

GROSS VALUE OF MINERAL PRODUCTION BY INDIVIDUAL MINERALS, ONTARIO, 1946 AND 1958 TO 1960—Continued

	1946	1958	1959	1960 ¹	Per Cent Change
NON-METALLICS	\$	\$	\$	\$	1960/1946
Arsenious Oxide	16,684	94,542	63,786	77,541	364.8
Asbestos	279	3,849,370	4,327,628	3,632,960	*
Corundum	102,340	—	—	—	-100.0
Feldspar	53,696	—	—	100	-100.0
Fluorspar	237,491	57,834	100,594	106,000	-55.4
Garnet	1,200	—	—	180	-85.0
Graphite	180,405	—	—	—	-100.0
Gypsum	492,179	1,059,590	1,017,340	981,250	99.4
Mica	66,952	2,106	959	4,938	-92.6
Mineral Waters	878	1,946	1,936	2,000	127.8
Nepheline Syenite	229,198	2,613,446	2,930,932	3,030,300	*
Peat	229,801	216,055	295,390	463,000	101.5
Pyrite, Pyrrhotite	—	655,569	632,140	556,320	—
Quartz	852,713	666,275	1,363,541	1,452,149	70.3
Salt	2,408,279	10,204,472	13,228,977	13,411,687	456.9
Silica Brick	78,532	187,061	114,684	—	-100.0
Sulphur	154,330	622,619	1,041,857	953,415	517.8
Talc	153,680	125,511	125,903	103,800	-32.5
Total	5,258,637	20,356,396	25,245,667	24,775,640	371.1
FUELS					
Natural Gas	4,656,528	5,974,755	6,516,784	6,093,750	30.9
Petroleum, Crude	291,719	2,623,000	3,194,000	2,763,750	847.4
Total	4,948,247	8,597,755	9,710,784	8,857,500	79.0
STRUCTURAL MATERIALS					
Cement	6,025,503	35,195,552	31,731,767	29,661,771	392.3
Clay Products	4,288,780	22,786,291	22,174,895	21,361,550	398.1
Lime	3,316,231	12,644,925	14,006,532	11,321,588	241.4
Sand and Gravel	6,738,595	40,055,031	39,695,602	39,787,692	490.4
Stone	3,923,972	20,670,480	22,053,425	22,884,079	483.2
Total	24,293,081	131,352,279	129,662,221	125,016,680	414.6
TOTAL, ONTARIO	191,544,429	789,601,868	970,762,201	984,024,964	413.7

*Over 1,000 per cent increase.

¹Preliminary.

Source: Dominion Bureau of Statistics, *General Review of the Mining Industry*.

PRODUCTION AND VALUE OF CHIEF METALLIC MINERALS, ONTARIO, 1939 AND 1945 TO 1960

	Nickel		Uranium		Copper		Gold		Iron Ore ¹		Platinum Metals	
	lb.	\$	lb.	\$	lb.	\$	fine oz.	\$	tons	\$	fine oz.	\$
1939	226,105,865	50,920,305	—	—	328,429,665	32,637,305	3,086,076	111,533,873	123,598	341,594	284,279	9,421,334
1945	245,130,983	61,982,133	—	—	239,457,242	29,772,270	1,625,368	62,576,668	1,135,444	3,635,095	666,908	26,688,084
1946	192,124,537	45,385,155	—	—	179,424,639	22,502,528	1,813,333	66,639,988	1,549,523	6,822,947	239,337	12,835,592
1947	237,251,496	70,650,764	—	—	227,867,613	46,018,544	1,944,819	68,068,665	1,919,366	9,313,201	204,902	9,970,207
1948	263,479,163	86,904,235	—	—	240,765,806	53,384,560	2,095,377	73,338,195	1,336,565	7,482,860	269,505	16,896,807
1949	257,379,216	99,173,289	—	—	226,085,423	44,658,786	2,354,509	84,762,324	2,011,736	13,192,781	335,916	19,885,049
1950	247,317,867	112,104,685	—	—	234,420,544	54,411,033	2,481,110	94,406,236	2,435,716	17,562,059	273,183	17,822,743
1951	275,806,272	151,269,994	—	—	257,616,806	70,861,789	2,462,979	90,760,776	2,841,984	21,205,152	318,366	22,490,537
1952	281,117,072	151,349,438	—	—	250,685,175	70,973,056	2,513,691	86,144,190	2,717,490	19,632,551	279,722	18,475,723
1953	287,385,777	160,430,098	—	—	261,164,653	77,587,439	2,182,437	75,119,481	2,832,090	23,137,997	303,563	20,046,390
1954	316,019,050	176,556,296	—	—	281,552,361	81,343,536	2,361,385	80,452,387	2,416,911	20,365,003	343,706	20,906,556
1955	322,322,355	198,489,258	n.a.	487,054	292,813,108	107,215,943	2,523,040	87,095,340	4,362,191	34,340,897	384,746	23,069,365
1956	335,152,371	208,099,454	906,614	9,361,867	312,541,701	128,552,450	2,513,912	86,604,268	5,558,203	44,177,246	314,818	22,407,090
1957	354,792,843	243,518,138	7,970,598	82,940,763	343,406,269	98,488,877	2,578,206	86,498,811	4,867,105	41,317,629	416,147	25,731,333
1958	354,286,784	177,168,918	19,970,136	210,149,700	284,069,476	71,267,895	2,716,514	92,307,146	3,644,952	36,851,421	300,458	14,321,443
1959	347,929,183	240,053,265	25,492,171	268,529,993	376,544,371	110,547,037	2,683,449	90,083,383	6,018,089	50,830,404	328,091	16,932,178
1960 ²	398,907,898	293,255,734	19,765,553	209,567,628	408,241,897	122,468,767	2,725,077	92,461,863	5,356,485	47,867,675	460,321	27,673,687

n.a. Not available.

¹Since 1955 value at the dock is reported which includes shipping charges.

²Estimated.

Source: Dominion Bureau of Statistics, *General Review of the Mining Industry*.

VII—MANUFACTURING

PRINCIPAL STATISTICS OF MANUFACTURING, ONTARIO, SELECTED YEARS 1870 TO 1959

	Establishments	Employees	Salaries and Wages	Net Value ¹ of Products	Gross Value ² of Products	G.V.P. in ² 1935-39 Dollars ³
	No.	No.		(Thousands of Dollars)		
1870	19,050	87,281	21,416	49,592	114,707	n.a.
1880	23,070	118,308	30,604	66,826	157,990	n.a.
1890 ⁴	32,151	166,322	49,730	111,505	239,241	272.5
1900 ⁵	6,543	161,757	56,548	103,303	241,533	315.7
1905 ⁶	6,163	184,526	80,730	n.a.	361,373	452.8
1910 ⁷	8,001	238,817	117,646	282,230	579,810	691.1
1915 ⁸	6,538	n.a.	140,610	304,861	715,532	757.2
1920	9,113	295,674	362,941	792,268	1,864,112	895.3
1921	8,704	221,095	264,194	585,525	1,289,681	835.3
1922	8,703	235,070	265,818	572,099	1,246,124	933.4
1923	8,862	254,451	297,870	620,699	1,392,687	1,015.8
1924	8,802	243,086	284,037	554,448	1,336,432	986.3
1925	8,845	253,223 ⁹	294,995	605,732	1,461,567	1,059.1
1926	8,898	270,676 ⁹	322,041	667,059	1,604,766	1,206.6
1927	8,953	286,165 ⁹	340,584	726,502	1,677,599	1,307.6
1928	9,344	309,893 ⁹	377,045	818,129	1,861,190	1,473.6
1929	9,348	328,533 ⁹	406,623	916,972	2,020,492	1,633.4
1930	9,315	295,593 ⁹	354,329	776,910	1,655,006	1,425.5
1931	9,546	257,601	297,215	624,809	1,257,450	1,263.7
1932	9,230	227,859	241,163	481,980	971,522	1,046.9
1933	9,542	224,816	220,530	465,104	958,777	1,027.7
1934	9,698	248,761	256,970	562,399	1,205,418	1,233.8
1935	9,636	270,449	289,982	609,642	1,363,185	1,439.5
1936	9,753	288,992	314,873	686,471	1,547,552	1,610.4
1937	9,796	321,743	373,018	804,703	1,880,388	1,801.1
1938	9,883	311,274	362,351	757,621	1,712,496	1,654.6
1939	9,824	318,871	378,376	791,429	1,745,675	1,713.2
1940	10,040	372,643	479,399	1,004,530	2,302,015	2,094.6
1941	10,250	468,230	660,722	1,360,056	3,121,757	2,627.8
1942	10,711	542,958	840,784	1,671,130	3,817,396	3,086.0
1943	10,587	570,017	956,399	1,844,652	4,221,101	3,326.3
1944	10,730	564,392	975,038	1,930,044	4,339,798	3,361.6
1945	10,869	518,056	883,483	1,720,938	3,965,069	3,054.8
1946	11,424	498,120	845,217	1,659,285	3,754,524	2,720.7
1947	11,860	537,581	1,037,927	2,136,014	4,903,473	3,019.4
1948	12,118	551,556	1,210,438	2,486,008	5,742,270	2,984.6
1949	12,951	557,180	1,305,544	2,708,554	6,103,805	3,064.2
1950	12,809	566,513	1,412,999	3,068,142	6,822,954	3,233.6
1951	13,025	599,433	1,669,387	3,569,400	8,074,731	3,331.1
1952	13,172	609,696	1,844,186	3,811,107	8,372,174	3,629.0
1953	13,114	634,554	2,017,982	4,130,126	8,876,505	3,879.6
1954	13,178	598,914	1,954,767	3,930,730	8,533,167	3,806.1
1955	13,276	613,872	2,088,906	4,426,655	9,617,643	4,284.0
1956	13,215	641,190	2,310,634	4,868,570	10,655,099	4,602.6
1957	13,580	644,245	2,430,676	5,047,711	11,078,593	4,656.8
1958	13,276	607,362	2,418,655	4,914,074	10,864,028	4,559.0
1959 ⁷	—	615,000	2,555,000	5,382,000	11,831,000	4,896.8

n.a. Not available.

¹Since 1924, calculated by subtracting the cost of fuel and electricity and materials from gross value; for the years before 1923, only cost of materials was deducted.

²Since 1951, the cost of collection has been value of factory shipments.

²Since 1952, the value of collection has been value of factory shipments.

*In 1890, all the hands numbered 14,065 and had a gross value of \$368,000.

value of \$368
Includes only establishments with 5 or more hands.

⁶A different method of computation in these years increased the number of employees somewhat over what it would have been if the method used in the other years had been followed.

⁷Estimated by the Ontario Department of Economics.

⁷Estimated by the Ontario Department of Economics.

Note: Statistics for 1870-1915 are not comparable with those from 1917 on, which are seasonally adjusted. The non-ferrous metal smelting industries were first included in manufacturing in 1925.

Source: Dominion Bureau of Statistics, *Canada Year Book, Manufacturing Industries of Canada, Ontario*, and memorandum.

ESTABLISHMENTS, EMPLOYMENT AND EARNINGS IN MANUFACTURING BY INDUSTRIAL GROUPS, ONTARIO, 1949, 1957 AND 1958

	Establishments			Employment			Earnings		
	1949	1957	1958	1949	1957	1958	1949	1957	1958
	No.	No.	No.	No.	No.	No.	(Thousands of Dollars)		
Foods and Beverages	3,238	3,206	3,129	70,082	79,617	78,230	141,863	257,623	273,197
Tobacco and Tobacco Products	22	17	17	1,814	1,873	2,690	3,581	5,382	8,693
Rubber Products	31	46	46	14,556	15,679	14,167	35,143	62,508	57,433
Leather Products	265	223	212	14,661	13,074	12,832	27,829	36,504	36,931
Textiles	358	380	378	29,729	27,145	24,798	61,530	84,134	79,893
Knitting Mills	1	123	123	1	9,792	8,710	1	23,372	21,840
Clothing (Textile and Fur)	1,030	695	671	41,252	24,711	23,096	76,998	63,948	62,509
Wood Products	2,707	2,384	2,157	35,472	35,165	32,494	67,371	104,139	100,078
Paper Products	255	265	258	30,299	36,423	35,947	81,151	151,456	155,529
Printing, Publishing and Allied Industries	1,566	1,878	1,829	31,062	37,276	36,209	72,952	145,149	151,484
Iron and Steel Products	1,201	1,555	1,644	106,085	123,601	112,979	278,193	518,598	494,459
Transportation Equipment	237	263	265	59,069	82,127	72,703	157,903	350,828	336,060
Non-Ferrous Metal Products	300	309	320	24,384	27,760	24,653	62,667	114,106	104,132
Electrical Apparatus and Supplies	246	312	320	38,905	54,622	49,991	96,640	216,734	212,223
Non-Metallic Mineral Products	479	547	529	14,661	20,088	20,569	35,397	78,510	85,270
Products of Petroleum and Coal	31	33	32	7,272	7,396	7,154	19,886	37,586	37,488
Chemicals and Allied Products	530	554	555	21,153	26,836	27,327	52,651	111,182	119,560
Misc. Manufacturing Industries	455	790	791	16,734	21,060	21,813	33,791	68,917	75,875
Total ¹	12,951	13,580	13,276	557,190	644,245	606,362	1,305,544	2,430,676	2,412,655

¹Included under Textiles.

²Figures may not add due to rounding.

Source: Dominion Bureau of Statistics, *The Manufacturing Industries of Canada, Section D, Province of Ontario*.

VALUE ADDED AND SELLING VALUE OF FACTORY SHIPMENTS IN MANUFACTURING BY INDUSTRIAL GROUPS, ONTARIO, 1949 AND 1957 TO 1959¹

	Value Added by Manufacture			Selling Value of Factory Shipments			
	1949 ²	1957	1958	1949 ³	1957	1958	1959 ⁴
	(Thousands of Dollars)						
Foods and Beverages	360,567	653,638	674,074	1,181,238	1,719,892	1,854,772	1,979,000
Tobacco and Tobacco Products	7,703	13,217	21,550	62,426	79,452	129,380	140,000
Rubber Products	83,026	144,356	145,191	145,297	265,798	253,309	285,000
Leather Products	42,892	55,714	56,446	106,231	115,169	121,340	136,000
Textiles	112,180	143,566	138,307	252,196	312,983	300,320	319,000
Knitting Mills	4	37,317	36,632	4	77,552	74,283	75,000
Clothing (Textile and Fur)	122,733	102,107	99,830	249,185	199,877	196,458	202,000
Wood Products	113,809	162,976	160,922	233,648	343,907	335,917	396,000
Paper Products	192,065	321,715	329,249	405,106	695,515	715,801	776,000
Printing, Publishing and Allied Industries	127,899	249,435	265,036	197,122	383,786	401,076	427,000
Iron and Steel Products	518,611	982,214	916,811	987,900	1,933,768	1,802,729	2,132,000
Transportation Equipment	313,002	624,420	580,883	751,776	1,638,519	1,504,740	1,408,000
Non-Ferrous Metal Products	165,630	339,578	274,733	404,637	873,321	683,424	929,000
Electrical Apparatus and Supplies	194,193	405,420	365,895	359,303	759,921	708,050	706,000
Non-Metallic Mineral Products	78,733	179,576	195,575	133,265	310,658	327,348	339,000
Products of Petroleum and Coal	55,372	145,935	137,162	201,371	441,814	457,314	511,000
Chemicals and Allied Products	158,365	352,477	374,548	330,496	702,384	750,577	804,000
Miscellaneous Manufacturing Industries	61,776	134,051	141,229	102,607	224,275	247,192	270,000
Total ⁵	2,708,554	5,047,711	4,914,074	6,103,805	11,078,593	10,864,028	11,831,000

¹Selling value of factory shipments for 1959 estimated by the Ontario Department of Economics.

²Net value of products.

³Gross value of products.

⁴Included under Textiles.

⁵Figures may not add due to rounding.

Source: Dominion Bureau of Statistics, *The Manufacturing Industries of Canada, Section D, Province of Ontario*.

PRINCIPAL STATISTICS OF THE FORTY LEADING MANUFACTURING INDUSTRIES, ONTARIO, 1958

Industries	Establishments	Employees	Salaries and Wages	Cost at Plant of Materials Used	Value Added by Manufacture ¹	Selling Value of Factory Shipments
	No.	No.			(Thousands of Dollars)	
1. Motor Vehicles	8	25,478	126,109	565,228	248,282	835,537
2. Primary Iron and Steel	19	21,249	109,586	196,542	235,797	456,943
3. Pulp and Paper	41	20,218	97,642	201,973	215,632	447,109
4. Non-Ferrous Metal Smelting and Refining	10	8,636	41,190	246,135	166,188	426,897 ²
5. Slaughtering and Meat Packing	65	9,367	39,865	317,937	75,715	395,608
6. Petroleum Products	14	5,337	29,375	255,696	120,862	393,462 ²
7. Motor Vehicle Parts	120	16,730	72,698	148,342	125,378	279,563
8. Rubber Goods, including Footwear	46	14,167	57,433	105,101	145,191	253,309
9. Aircraft and Parts	36	21,415	100,434	98,778	145,646	247,216 ²
10. Machinery, Heating and Electrical	57	18,112	89,496	85,438	127,677	220,575
11. Sheet Metal Products	240	11,390	47,662	104,468	91,067	197,589
12. Machinery, Including Electrical	227	14,004	59,205	85,048	109,116	196,884
13. Fruit and Vegetable Preparations	176	10,305	30,217	119,950	70,123	188,243
14. Butter and Cheese	401	7,974	28,618	135,824	43,266	184,560
15. Telecommunication Equipment	89	12,748	46,759	91,493	90,443	180,743
16. Castings, Iron	86	9,515	39,285	94,034	74,831	173,636
17. Miscellaneous Electrical Apparatus and Supplies	107	11,254	44,205	84,693	82,330	167,095
18. Printing and Publishing	285	14,005	61,662	41,488	115,695	158,534
19. Printing and Publishing	782	13,996	54,906	57,391	91,823	149,839
20. Furniture	720	14,882	48,483	70,134	76,865	149,132
21. Bread and Other Baked Products	845	14,927	46,424	65,628	72,465	142,759
22. Miscellaneous Products	112	4,554	17,267	88,098	52,652	142,248
23. Boxes and Bags	107	8,417	30,773	83,485	54,017	138,059
24. Acids, Alkalies and Chemicals	30	5,140	25,623	62,042	62,059	137,204
25. Miscellaneous Products	128	5,766	26,928	64,909	64,042	136,052
26. Agricultural Products	27	10,030	44,105	72,127	54,545	122,112
27. Miscellaneous Products	105	6,852	25,267	64,387	55,129	120,298
28. Soaps, Washing and Cleaning Preparations	67	3,155	14,685	48,855	68,334	117,485
29. Hardware, Tools and Appliances	308	9,861	38,531	39,149	74,524	114,925
30. Refrigerators, Freezers and Appliances	55	6,397	25,672	53,638	54,185	111,879
31. Feeds, Stock and Fertilizers	352	2,768	8,892	82,596	27,014	110,746
32. Machinery, House and Store	45	5,988	25,612	49,991	57,989	110,311
33. Brass and Copper	90	5,613	22,836	63,561	42,957	105,843
34. Tobacco Processing	10	1,522	4,187	94,645	9,175	104,100 ²
35. Railway Rolling Stock	12	4,601	20,235	63,961	32,484	97,325 ²
36. Breweries	18	2,798	14,071	21,818	70,162	94,152
37. Distilled Liquors	9	2,199	8,983	28,637	61,424	89,056
38. Heating and Cooling	67	5,434	21,745	45,351	42,493	89,038
39. Flour Mills	40	1,778	6,712	70,972	15,346	87,347
40. Wire and Wire Products	79	5,487	23,284	46,598	37,797	86,557
Totals, Leading Industries	6,035	394,069	1,676,663	4,316,138	3,460,718	7,959,972
Totals, All Industries	13,276	606,362	2,412,655	5,704,319	4,914,074	10,864,028

¹Calculated value added (cost of materials plus closing inventory, minus opening inventory of goods in process and finished products) less cost of materials and fuel

²Reported

³Figures in millions

Source: Dominion Bureau of Statistics

The Manufacturing Industries of Canada.

SELLING VALUE OF FACTORY SHIPMENTS OF THE TWENTY LEADING MANUFACTURING INDUSTRIES,
CANADA AND ONTARIO, 1949 AND 1957 TO 1959

	(Ranked According to 1958 Selling Value of Factory Shipments)								Ontario as			
	Canada				Ontario				Per Cent of Canada			
	1949 ¹	1957	1958	1959 ²	1949 ¹	1957	1958	1959 ²	1949	1957	1958	1959
	(Thousands of Dollars)											
Motor Vehicles	485,757	948,597	847,342	922,000	476,084	936,905	835,537	904,000	98.0	98.8	98.6	98.0
Primary Iron and Steel	305,735	704,566	590,318	769,000	226,993	545,501	456,943	660,000	74.2	77.4	77.4	85.5
Pulp and Paper	836,148	1,411,934	1,394,679	1,501,000	264,183	442,866	447,109	460,000	31.6	31.4	32.1	30.7
Non-Ferrous Metal Smelting and Refining	599,188	1,280,146	1,135,771	1,337,000	237,688	611,038	426,897	591,000	39.7	47.7	37.6	44.2
Slaughtering and Meat Packing	697,950	907,088	1,050,461	1,210,000	265,292	347,661	395,608	447,000	38.0	38.3	37.7	36.9
Petroleum Products	436,796	1,376,559	1,368,649	1,511,000	141,428	365,328	393,462	434,000	32.4	26.5	28.7	28.7
Motor Vehicle Parts	171,590	315,396	295,741	323,000	167,724	298,080	279,563	291,000	97.7	94.5	94.5	90.1
Rubber Goods, Including Footwear	178,504	326,091	308,383	339,000	145,297	265,798	253,309	280,000	81.4	81.5	82.1	82.6
Aircraft and Parts	61,099	424,443	462,331	312,000	18,643	232,470	247,216	109,000	30.5	54.8	53.5	34.9
Machinery, Heavy, Electrical	158,150	301,241	244,744	229,000	150,781	273,347	220,575	206,000	95.3	90.7	90.1	90.0
Sheet Metal Products	156,717	309,499	333,265	348,000	94,124	182,955	197,589	196,000	60.1	59.1	59.3	56.3
Machinery, Industrial	148,157	363,000	311,095	339,000	87,033	213,963	196,884	215,000	58.7	58.9	63.3	63.4
Fruit and Vegetable Preparations	148,762	265,470	276,698	311,000	95,225	179,577	188,243	212,000	64.0	67.6	68.0	68.2
Butter and Cheese	355,004	469,852	522,793	570,000	128,511	170,018	184,560	201,000	36.2	36.2	35.3	35.3
Telecommunication Equipment	n.a.	217,727	237,995	223,000	36,106	167,697	180,743	169,000	n.a.	77.0	75.9	75.8
Castings, Iron	133,314	276,048	253,445	259,000	91,628	192,923	173,636	172,000	68.7	69.9	68.5	66.4
Miscellaneous Electrical Apparatus and Supplies	161,008	381,079	347,837	220,000	77,010	179,220	167,095	106,000	47.8	47.0	48.0	48.2
Printing and Publishing	169,268	314,344	327,687	428,000	79,775	151,441	158,534	195,000	47.1	48.2	48.4	45.6
Printing and Bookbinding	120,823	244,691	258,324	276,000	69,625	141,522	149,839	160,000	57.6	57.8	58.0	58.0
Furniture	157,123	307,341	308,815	322,000	82,213	150,474	149,132	151,000	52.3	49.0	48.3	46.9

n.a. Not available.

¹Gross Value of Products.

²Estimated by the Ontario Department of Economics.

Source: Dominion Bureau of Statistics, *The Manufacturing Industries of Canada*.

INDUSTRIES IN WHICH ONTARIO ACCOUNTED FOR OVER FIFTY PER CENT OF CANADA'S SELLING VALUE OF FACTORY SHIPMENTS, 1958

(Ranked According to 1958 Percentage Contribution)

I. Industries in which Ontario's selling value of factory shipments was greater than \$50,000,000.

	1957		1958	
	Ontario as %		Ontario as %	
	of Canada		of Canada	
			Ontario	Canada
			(Thousands of Dollars)	
Motor Vehicles	98.8	98.6	835,537	847,342
Tobacco Processing and Packing	94.7	96.2	104,100	108,191
Motor Vehicle Parts	94.5	94.5	279,563	295,741
Agricultural Implements	90.0	91.7	122,112	133,145
Machinery, Heavy, Electrical	90.7	90.1	220,575	244,744
Soaps and Washing Compounds	88.4	89.0	117,485	132,023
Rubber Products	81.5	82.1	253,309	308,383
Household, Office and Store Machinery	79.7	81.1	110,311	135,977
Instruments and Related Products	76.1	78.3	71,762	91,616
Primary Iron and Steel	77.4	77.4	456,943	590,318
Refrigerators, Vacuum Cleaners, etc.	80.7	77.0	111,879	145,237
Telecommunications Equipment	77.0	75.9	180,743	237,994
Hardware, Tools and Cutlery	74.0	72.6	114,925	158,197
Miscellaneous Paper Goods	71.3	70.2	120,298	171,424
Heating and Cooking Apparatus	68.3	68.9	89,038	129,265
Iron Castings	69.9	68.5	173,636	253,445
Fruit and Vegetable Preparations	67.6	68.0	188,243	276,698
Coke and Gas Products	65.4	66.4	54,968	82,789
Machinery, Industrial	58.9	63.3	196,884	311,095
Miscellaneous Chemical Products	58.2	62.6	136,052	217,508
Boilers, Tanks and Platemwork	59.1	60.7	66,086	108,889
Glass and Glass Products	63.5	60.2	56,456	93,819
Miscellaneous Iron and Steel Products	57.6	60.1	72,902	121,265
Brass and Copper Products	57.7	60.0	105,843	176,401
Aluminum Products	65.0	59.4	58,128	97,884
Sheet Metal Products	59.1	59.3	197,589	333,265
Wire and Wire Goods	59.5	58.2	86,557	148,798
Printing and Bookbinding	57.8	58.0	149,839	258,324
Confectionery	57.7	57.6	80,982	140,707
Distilled Liquors	55.2	56.2	89,056	158,476
Milk Pasteurizing	55.8	55.8	81,016	145,100
Paints, Varnishes and Lacquers	55.8	54.4	77,802	143,097
Aircraft and Parts	54.8	53.5	247,216	462,331
Acids, Alkalies and Salts	55.3	52.6	137,204	260,968
Medical and Pharmaceutical Preparations	53.4	52.6	81,590	155,006
Concentrated Milk Products	51.2	50.6	53,285	105,227

INDUSTRIES IN WHICH ONTARIO ACCOUNTED FOR OVER FIFTY PER CENT OF CANADA'S SELLING VALUE
OF FACTORY SHIPMENTS, 1958—*Continued*

II. Industries in which Ontario's selling value of factory shipments was less than \$50,000,000 but greater than \$10,000,000.

	1957	1958		
	Ontario as % of Canada	Ontario as % of Canada	Ontario	Canada
			(Thousands of Dollars)	
Machine Tools	100.0	100.0	11,355	11,355
Miscellaneous Non-Ferrous Metal Products	93.2	92.9	15,860	17,066
Breakfast Foods	90.6	90.6	32,526	35,901
Wines	86.9	88.4	15,762	17,825
Leather Tanneries	85.0	86.1	45,098	52,392
Cordage, Rope and Twine	76.0	78.7	12,571	15,970
Sporting Goods	76.3	77.5	15,851	20,453
Vegetable Oils	74.9	77.5	41,687	53,795
Toys and Games	74.3	75.7	17,282	22,843
Clocks, Watches and Watch Cases	78.0	75.7	11,950	15,784
Polishes and Dressings	74.5	74.8	18,323	24,508
Stone Products	72.1	74.0	21,524	29,104
Jewellery and Silverware	72.4	73.7	39,740	53,899
White Metal Alloys	73.0	73.6	36,956	50,178
Lithography	66.1	72.0	39,124	54,345
Adhesives	73.3	71.2	10,236	14,381
Woolen Yarn	69.7	70.8	22,231	31,421
Batteries	70.7	70.1	27,759	39,605
Carpets, Mats and Rugs	72.4	68.6	16,202	23,628
Feed Mills	71.6	67.3	22,316	33,158
Musical Instruments	66.1	67.3	11,008	16,352
Engraving, Stencilling and Electrotyping	69.1	66.7	25,585	38,370
Salt	66.1	66.6	11,290	16,957
Clay Products, Other Impure Clay	61.3	64.6	15,290	23,687
Lime	55.7	64.4	13,041	20,262
Inks	87.1	64.1	11,203	17,482
Toilet Preparation	59.2	59.6	30,673	51,856
Boxes and Packaging Wood	58.9	58.8	13,502	22,963
Brooms, Brushes, etc., of Wood	56.3	56.5	10,740	18,997
Sausage and Sausage Casings	46.2	54.7	17,560	32,116
Clay Products, Other High-fired Clay	51.1	54.6	22,780	41,710
Miscellaneous Wood and Goods	54.2	54.5	14,451	26,501
Plastic Products	56.7	52.8	38,971	73,857
Asbestos Products	44.6	51.6	14,241	27,610

Source: Dominion Bureau of Statistics, *The Manufacturing Industries of Canada*.

MANUFACTURING BY INDUSTRIAL GROUPS, ONTARIO, 1953 AND 1959 TO 1961

	1953	1959	1960 ¹	1961 ²
	(Millions of Dollars)			
Foods and Beverages	35.2	62.6	69.0	59.3
Rubber Products	12.9	10.6	11.7	17.5
Textile Products	17.2	7.9	9.6	9.1
Clothing	6.2	3.8	3.4	3.5
Wood Products	9.7	11.1	9.6	5.6
Paper Products	39.9	41.6	30.1	40.4
Printing, Publishing and Allied Industries	10.1	13.5	13.4	11.6
Iron and Steel Products	85.0	110.1	158.4	121.5
Transportation Equipment	82.9	37.9	24.5	26.9
Non-Ferrous Metal Products	16.9	13.4	20.0	32.9
Electrical Apparatus and Supplies	28.2	20.0	20.7	21.1
Non-Metallic Mineral Products	15.7	29.0	22.3	19.3
Products of Chemicals	38.1	18.7	13.6	11.3
Chemical Products	45.0	44.7	61.3	95.3
Other Manufactures	56.4	77.5	81.7	78.3
Total	499.4	502.4	549.3	553.6

¹Preliminary actual.

²Intentions.

Source: Department of Trade and Commerce, *Private and Public Investment in Canada (Outlook and Regional Estimates)*.

VIII—CONSTRUCTION AND HOUSING

VALUE OF CONSTRUCTION WORK PERFORMED, CANADA AND PROVINCES, SELECTED YEARS 1939 TO 1960

		1939	1946	1951	1956	1957	1958	1959 ¹	1960 ²
Canada	(\$000's) %	373,204 (100.0)	868,661 (100.0)	3,661,152 (100.0)	6,388,832 (100.0)	7,023,058 (100.0)	7,092,481 (100.0)	7,128,585 (100.0)	7,317,240 (100.0)
Atlantic Provinces	(\$000's) %	36,725 (9.8)	71,001 (8.2)	259,791 (7.1)	412,729 (6.4)	416,324 (5.9)	441,750 (6.2)	498,060 (7.0)	511,559 (7.0)
Quebec	(\$000's) %	118,530 (31.8)	225,582 (26.0)	898,372 (24.5)	1,530,279 (23.9)	1,661,552 (23.6)	1,732,647 (24.4)	1,822,620 (25.6)	1,776,902 (24.3)
Ontario	(\$000's) %	144,830 (38.8)	347,617 (40.0)	1,349,407 (36.8)	2,194,020 (34.3)	2,507,011 (35.7)	2,598,625 (36.6)	2,422,492 (34.0)	2,545,872 (34.8)
Manitoba	(\$000's) %	14,849 (4.0)	43,463 (5.0)	182,526 (5.0)	310,905 (4.9)	327,306 (4.7)	345,293 (4.9)	410,450 (5.8)	400,456 (5.5)
Saskatchewan	(\$000's) %	13,429 (3.6)	29,277 (3.4)	153,762 (4.2)	363,086 (5.7)	353,560 (5.0)	383,344 (5.4)	342,513 (4.8)	379,947 (5.2)
Alberta	(\$000's) %	17,856 (4.8)	51,573 (5.9)	379,256 (10.4)	757,716 (11.8)	707,005 (10.1)	787,336 (11.1)	817,081 (11.5)	878,365 (12.0)
British Columbia ³	(\$000's) %	86,985 (7.2)	100,148 (11.5)	438,038 (12.0)	829,897 (13.0)	1,050,300 (15.0)	803,486 (11.3)	815,369 (11.4)	824,139 (11.3)

¹Preliminary.

²Intimations.

³Includes Yukon and Northwest Territories.

Source: Dominion Bureau of Statistics, *Construction in Canada*.

VALUE OF CONSTRUCTION WORK PERFORMED BY PRINCIPAL TYPES, ONTARIO, 1951 AND 1957 TO 1959

	1951	1957	1958	1959	Per Cent Change	
	(Thousands of Dollars)				1959/1951	1959/1958
Total Building Construction	913,512	1,531,963	1,607,649	1,585,295	73.5	-1.4
Residential	408,900	708,000	879,700	814,800	99.3	-7.4
Dwellings, Single, Double, Duplexes and Apartments	408,900	708,000	879,700	814,800	99.3	-7.4
Industrial	196,564	300,092	173,116	172,037	-12.5	-0.6
Factories, Plants, Workshops, Food Canneries	175,103	193,879	139,807	145,370	-17.0	4.0
Mine and Mine Mill Buildings	12,237	93,907	19,931	13,997	14.4	-29.8
Railway Stations, Offices, Roadway Buildings	5,297	7,582	8,305	8,132	53.5	-2.1
Railway Shops, Engine Houses, Water and Fuel Stations	3,927	4,724	5,073	4,538	15.6	-10.5
Commercial	146,753	276,126	285,082	309,291	110.8	8.5
Warehouses, Storehouses, Refrigerated Storage, etc.	33,049	39,369	33,261	21,468	-35.0	-35.5
Grain Elevators	423	1,048	1,189	6,795	*	471.5
Hotels, Clubs, Restaurants, Cafeterias, Tourist Cabins	8,891	26,390	25,757	19,994	124.9	-22.4
Office Buildings	53,112	105,981	121,627	153,634	189.3	26.3
Stores, Retail and Wholesale	36,428	67,471	70,654	75,182	106.4	6.4
Garages and Service Stations	10,784	23,010	18,768	18,329	70.0	-2.3
Theatres, Arenas, Amusement and Recreational Buildings	3,230	11,889	10,105	12,945	300.8	28.1
Laundries and Dry Cleaning Establishments	836	968	3,721	944	12.9	-74.6
Institutional	91,079	159,499	192,162	207,737	128.1	8.1
Schools and Other Educational Buildings	41,414	89,908	108,458	114,205	175.8	5.3
Churches and Other Religious Buildings	9,221	15,110	19,456	23,890	159.1	22.8
Hospitals, Sanatoria, Clinics, First-Aid Stations, etc.	25,866	42,567	50,810	58,644	126.7	15.4
Other Institutional Buildings	14,578	11,914	13,438	10,998	-24.6	18.2
Other Building Construction	70,216	88,246	77,589	81,430	16.0	5.0
Farm Buildings (excluding dwellings)	35,586	42,918	49,876	54,040	51.9	8.3
Broadcasting, Radio and Television, Relay and Booster Stations, Telephone Exchanges	4,745	17,433	8,916	9,878	108.2	10.8
Aeroplane Hangars	2,057	3,262	1,074	784	-61.9	-27.0
Passenger Terminals, Bus, Boat and Air Armories, Barracks, Drill Halls, etc.	—	49	315	60	n.a.	-81.0
Bunkhouses, Dormitories, Camp Cookeries, Bush Depots and Camps	17,717	8,406	6,915	7,493	-57.7	8.4
Other Building Construction	9,039	7,294	3,170	1,602	-82.3	-49.5
	1,072	8,884	7,323	7,573	606.4	3.4

VALUE OF CONSTRUCTION WORK PERFORMED BY PRINCIPAL TYPES, ONTARIO, 1951 AND 1957 TO 1959—Continued

	1951	1957	1958	1959	Per Cent Change	
	(Thousands of Dollars)				1959 1951	1959 1958
Total Engineering Construction	435,895	975,048	990,976	837,197	92.1	-15.5
Marine Construction						
Docks, Wharves, Piers, etc.	8,329	43,898	62,699	34,911	319.1	-44.3
Canals and Waterways	5,402	8,770	18,755	16,844	211.8	-10.2
Retaining Walls, Embankments, Riprapping	558	341	661	664	19.0	0.5
Dredging and Spoil Disposal	438	17,739	4,915	1,864	325.6	-62.1
Dyke Construction	1,671	8,948	37,029	14,402	761.9	-61.1
Logging Booms	—	30	3	—	—	—
Other Marine Construction	260	299	270	231	—	-14.4
		7,771	1,066	906	248.5	-15.0
Road, Highway and Street Construction	109,779	203,400	216,104	235,427	114.5	8.9
Hard Surfaced Roads, Highways, Parking Lots, etc.	51,954	140,717	158,013	170,202	227.6	7.7
Gravel or Stone Roads, Parking Lots, etc.	20,636	37,982	38,930	44,173	114.1	13.5
Dirt, Clay or Other Roads, Parking Lots, etc.	764	7,426	4,104	5,349	600.1	30.3
Grading, Scraping	17,166	3,916	718	582	-96.6	-18.9
Sidewalks, Paths	4,058	5,691	6,959	6,697	65.0	-3.8
Aerodromes, Landings, Aprons, Tarmac	6,417	7,668	7,380	8,424	31.3	14.1
Other	8,784	—	—	—	—	—
Waterworks and Sewerage	28,348	82,474	76,046	85,527	201.7	12.5
Tile Drains, Ditches, Sewers	4,333	5,935	5,246	6,114	41.1	16.5
Water Mains	9,229	26,086	23,802	23,066	149.9	-3.1
Sewage Systems	14,069	41,898	41,302	50,238	257.1	21.6
Pumping Stations	—	6,693	4,245	4,988	—	17.5
Water Storage	717	1,862	1,451	1,121	56.3	22.7
Dams and Irrigation	3,174	5,853	6,419	5,007	57.8	-22.0
Dams and Reservoirs	2,060	3,576	3,802	2,167	5.2	-43.0
Irrigation and Drainage Systems	1,114	2,277	2,617	2,840	154.9	8.5
Electric Power Generation	150,302	197,600	155,613	169,501	12.8	8.9
Electric Power Generating Stations	—	—	—	—	—	—
Conveying and Distributing Water	—	116,727	74,736	75,825	—	1.5
Electric Transmission Lines	148,355	12,393	11,308	24,744	10.7	118.8
Power Transmission Lines, Trolley Wires	—	64,343	64,485	63,637	—	-1.3
Street Lighting	1,947	4,137	5,084	5,295	172.0	4.2
Railway, Telephone and Cable	76,348	131,921	138,007	138,998	82.1	0.7
Railway Tracks	50,043	77,436	83,693	76,054	52.0	-9.1
Signals and Interlocking	2,221	4,866	2,954	4,051	82.4	37.1
Telegraph and Cable	24,084	49,619	51,360	58,893	144.5	14.7
Gas and Oil Facilities	9,338	208,396	254,872	81,292	770.6	-68.1
Gas Mains and Pipes	—	23,242	39,695	30,915	—	-22.1
Pumping Stations	10	1,405	607	368	*	-39.4
Pumping Stations	—	37	5,322	13,879	*	160.8
Oil Storage Tanks	2,435	7,630	6,124	3,984	64.4	-34.9
Gas Storage Tanks	—	1	3	20	—	566.7
Oil Pipe Lines	790	12,987	1,502	1,036	31.1	-31.0
Gas Pipe Lines	5,329	103,993	152,253	7,814	46.6	-94.9
Oil Wells	168	364	682	756	*	10.9
Gas Wells	—	1,466	1,348	1,122	—	-16.8
Oil Refinery-Processors	606	57,154	47,336	21,376	*	-54.8
Natural Gas Compressor Stations	—	117	—	22	—	—
Other Engineering Construction	50,277	101,506	81,216	86,534	72.1	6.5
Bridges, Trestles, Viaducts	23,173	51,773	44,120	55,281	138.6	25.3
Tunnels and Subways	13,723	2,168	1,997	4,326	-68.5	116.6
Incinerators	—	68	1,041	273	—	-73.8
Park Systems, Landscaping	4,507	2,064	1,997	2,698	-40.1	35.1
Swimming Pools, Beaches, Recreation Facilities	—	229	533	657	—	23.3
Mine Shafts and Underground Workings	5,148	32,295	18,429	10,480	103.6	-43.1
Fences, Snowsheds	2,677	5,402	4,701	4,650	73.7	-1.1
Other Engineering Construction	1,049	7,507	8,398	8,169	678.7	-2.7
TOTAL VALUE	1,349,407	2,507,011	2,598,625	2,422,492	79.5	-6.8

*Over 1,000.0 per cent.
Source: Dominion Bureau of Statistics, Construction in Canada.

NEW DWELLING UNITS STARTED, COMPLETED AND UNDER CONSTRUCTION, CANADA AND ONTARIO, 1951 AND 1958 TO 1960

	New Dwelling Units Started			New Dwelling Units Completed			New Dwelling Units Under Construction at December 31		
	Canada	Ontario	Ont. as % of Canada	Canada	Ontario	Ont. as % of Canada	Canada	Ontario	Ont. as % of Canada
1951									
Total	68,579	27,349	39.9	81,310	31,732	39.0	45,926	19,258	41.9
Urban	52,906	21,680	41.0	65,387	26,530	40.6	31,779	13,159	41.4
Rural	15,673	5,669	36.2	15,923	5,202	32.7	14,147	6,099	43.1
1958									
Total	164,632	63,753	38.7	146,686	59,551	40.6	88,162	33,414	37.9
Urban	132,674	50,334	37.9	116,512	46,660	40.0	68,435	25,950	37.9
Rural	31,958	13,419	42.0	30,174	12,891	42.7	19,727	7,464	37.8
1959									
Total	141,345	54,158	38.3	145,671	54,281	37.3	81,905	32,827	40.1
Urban	116,188	42,301	36.4	118,930	41,807	35.2	65,824	25,711	39.1
Rural	25,157	11,857	47.1	26,741	12,474	46.6	16,081	7,116	44.3
1960									
Total	108,858	42,282	38.8	123,757	46,982	38.0	65,773	28,335	43.1
Urban	86,472	32,742	37.9	100,562	36,613	36.4	50,564	22,256	44.0
Rural	22,386	9,540	42.6	23,195	10,369	44.7	15,209	6,079	40.0

Source: Dominion Bureau of Statistics, *New Residential Construction*.

IX—SURVEY OF PRODUCTION

NET VALUE OF PRODUCTION BY INDUSTRY, ONTARIO, SELECTED YEARS 1926 TO 1959

		Total	Agriculture	Forestry	Fisheries	Trapping	Mining	Electric Power	Manufactures	Construction
1926	(\$000's) C _c	980,637 (100.0)	214,786 (21.9)	n.a.	2,522 (0.3)	3,429 (0.4)	53,289 (5.4)	39,552 (4.0)	667,059 (68.0)	n.a.
1939	(\$000's) C _c	1,305,034 (100.0)	171,394 (13.1)	22,080 (1.7)	2,515 (0.2)	1,550 (0.1)	136,966 (10.5)	52,100 (4.0)	791,429 (60.7)	127,000 (9.7)
1946	(\$000's) C _c	2,529,727 (100.0)	330,948 (13.1)	73,149 (2.9)	5,597 (0.2)	7,793 (0.3)	106,809 (4.2)	73,547 (2.9)	1,659,284 (65.6)	272,600 (10.8)
1951	(\$000's) %	5,244,448 (100.0)	554,100 (10.6)	118,526 (2.3)	7,035 (0.1)	5,214 (0.1)	178,554 (3.4)	127,319 (2.4)	3,569,400 (68.1)	684,300 (13.0)
1952	(\$000's) C _c	5,546,771 (100.0)	562,623 (10.1)	114,220 (2.1)	7,417 (0.1)	3,657 (0.1)	182,085 (3.3)	140,762 (2.5)	3,811,107 (68.7)	724,900 (13.1)
1953	(\$000's) C _c	5,990,989 (100.0)	515,492 (8.6)	96,911 (1.6)	7,027 (0.1)	3,869 (0.1)	184,516 (3.1)	164,347 (2.8)	4,130,127 (68.9)	888,700 (14.8)
1954	(\$000's) C _c	5,814,195 (100.0)	461,659 (7.9)	99,009 (1.7)	7,013 (0.1)	2,683 (0.1)	196,422 (3.4)	179,979 (3.1)	3,930,730 (67.6)	936,700 (16.1)
1955	(\$000's) C _c	6,451,653 (100.0)	501,434 (7.8)	114,483 (1.8)	6,783 (0.1)	4,286 (0.1)	221,263 (3.4)	208,649 (3.2)	4,426,655 (68.6)	968,100 (15.0)
1956	(\$000's) C _c	7,096,621 (100.0)	491,470 (6.9)	125,917 (1.8)	7,927 (0.1)	2,990 (0.1)	246,454 (3.5)	236,993 (3.3)	4,868,570 (68.6)	1,116,300 (15.7)
1957	(\$000's) %	7,567,527 (100.0)	513,946 (6.8)	128,521 (1.7)	7,047 (0.1)	2,576 *	309,475 (4.1)	249,187 (3.3)	5,047,711 (66.7)	1,309,064 (17.3)
1958	(\$000's) C _c	7,659,224 (100.0)	590,306 (7.7)	87,633 (1.2)	7,271 (0.1)	2,713 *	401,231 (5.2)	261,370 (3.4)	4,914,074 (64.2)	1,394,626 (18.2)
1959	(\$000's) C _c	8,100,000 (100.0)	527,200 (6.5)	97,200 (1.2)	4,890 (0.1)	2,450 *	515,500 (6.4)	304,160 (3.7)	5,360,000 (66.2)	1,288,600 (15.9)

n.a. Not available.

*Less than 0.05 per cent.

¹Estimated by the Ontario Department of Economics.

Source: Dominion Bureau of Statistics, *Survey of Production*.

X—TOURIST TRADE

PRINCIPAL STATISTICS OF HOTELS BY NATURE OF OPERATIONS, ONTARIO, 1959

		Total All Hotels	Full Year Licensed Hotels	Full Year Non-Licensed Hotels	Seasonal Licensed Hotels	Seasonal Non-Licensed Hotels
Number of Hotels		1,494	893	143	49	409
Number of Rooms		48,033	30,640	3,616	2,176	11,601
In Hotels		39,022	29,728	3,239	1,208	4,847
In Cabins		9,011	912	377	968	6,754
Bed Capacity		90,734	55,583	6,443	4,407	24,301
Salaries and Wages	(\$000's)	45,739	42,267	918	693	1,861
Total Operating Receipts	(\$000's)	163,924	149,898	3,652	2,759	7,615
Proportion of Receipts						
Rooms	%	23.7	21.8	46.6	37.8	44.5
Meals	%	22.6	21.1	40.3	32.0	41.0
Beer, Wine and Liquor	%	45.4	49.4	—	15.2	—
Other Sources	%	8.3	7.7	13.1	15.0	14.5

Definitions: Hotels—establishments with six or more rooms providing lodging or lodging and meals for transient guests.
Full year: hotels and establishments operated for at least ten months in the year.

Source: Dominion Bureau of Statistics, *Hotels*.

XI—TRANSPORTATION

RAILWAY FREIGHT LOADED, ONTARIO, SELECTED YEARS 1939 TO 1959

	Total		Agricultural Products		Animals and Animal Products		Mine Products		Forest Products		Manufactures and Miscellaneous		All L.C.L. ¹	
	(Tons)	%	(Tons)	%	(Tons)	%	(Tons)	%	(Tons)	%	(Tons)	%	(Tons)	%
1939	34,768,367	100.0	5,429,345	16.4	1,381,301	4.0	12,600,359	36.2	2,337,868	6.7	11,689,767	33.6	1,029,728	3.0
1946	62,926,767	100.0	14,069,525	20.6	1,668,126	2.6	20,063,007	31.9	5,010,750	8.0	21,405,624	34.0	1,809,031	2.9
1951	68,982,265	100.0	17,338,496	16.6	1,130,805	1.6	24,171,756	34.0	5,779,120	8.4	25,090,611	36.4	1,371,485	2.0
1955	65,744,838	100.0	9,512,271	14.5	977,955	1.5	24,695,120	37.6	4,721,460	7.2	24,864,987	37.8	952,045	1.4
1956	71,936,662	100.0	11,579,743	16.1	945,514	1.3	27,305,754	38.0	5,201,007	7.2	25,960,683	36.1	944,356	1.3
1957	67,342,501	100.0	8,479,695	12.9	861,218	1.3	26,690,835	39.6	4,871,494	7.2	25,399,614	37.7	848,338	1.3
1958	58,191,667	100.0	8,113,595	15.0	619,933	1.1	22,478,538	38.6	4,026,980	6.9	21,729,309	37.3	618,244	1.1
1959	62,206,576	100.0	9,033,333	12.8	593,951	0.9	26,228,698	42.2	3,832,874	6.2	22,993,640	37.0	573,780	0.9

¹Less than carload.

Note: Includes freight to and from Ontario and freight received from United States rail connections.

Source: Dominion Bureau of Statistics, *Railway Freight Traffic*.

RAILWAY FREIGHT UNLOADED, ONTARIO, SELECTED YEARS 1939 TO 1959

	Loaded at Stations in Ontario ¹	Received from U.S. Rail Connections	Total Freight Traffic (Excl. Duplications)	Unloaded at Stations in Ontario ²	Delivered to U.S. Rail Connections
	(Tons)				
Iron Ore	7,445,602	17,723	7,463,325	7,681,926	399,348
Stone and Rock	—	—	—	—	—
(broken, crushed, etc.)	4,012,880	60,441	4,073,321	3,883,226	180,946
Copper-Nickel Ore	2,888,299	—	2,888,299	2,888,199	—
Wheat	2,069,234	460,743	2,529,977	6,361,216	458,494
Gravel and Sand	—	—	—	—	—
(excluding industrial)	2,401,676	110,069	2,511,745	2,884,455	16,575
Bituminous Coal	1,135,407	1,063,653	2,199,060	2,490,250	225,125
Manufactured Iron and Steel	885,504	1,038,196	1,923,700	494,167	945,565
Pulpwood	1,616,555	80,773	1,697,328	1,378,156	605,548
Lumber, Shingles & Sawn Timber	624,444	719,667	1,344,111	1,262,130	1,927,710
Newsprint Paper	1,089,033	29,994	1,119,027	203,146	1,670,899
Coke	448,848	609,813	1,058,661	821,573	100,782
Anthracite Coal	3,293	1,020,601	1,023,894	1,035,435	124,268
Woodpulp	733,243	198,367	931,610	219,766	1,377,795
Salt	670,763	159,686	830,449	261,474	161,977
Gasoline	801,901	23,290	825,191	1,030,370	2,000
All Other	15,640,664	13,572,434	29,213,098	17,758,000	11,905,023
Total, Carload Traffic	42,467,346	19,165,450	61,632,796	50,653,489	20,102,055
All L.C.L. Freight	415,763	158,017	573,780	403,990	111,819
Grand Total	42,883,109	19,323,467	62,206,576	51,057,479	20,213,874

L.C.L. Less than carload.

¹Includes imports at lake ports.

²Includes exports at lake ports.

Source: Dominion Bureau of Statistics, *Railway Freight Traffic*.

ROAD MILEAGES BY TYPE OF SURFACE, ONTARIO, 1956 TO 1959

	1956	1957	1958	1959
Concrete	1,337.88	1,180.75	1,136.89	1,148.66
Bituminous Pavement	9,188.76	10,253.83	11,010.68	11,419.11
Mulch Pavement	5,750.73	6,199.26	6,641.04	6,271.03
Gravel and Crushed Stone	56,797.11	56,086.51	56,456.06	57,093.14
Earth	10,433.76	10,083.02	9,848.13	9,594.81
Total	83,508.24	83,803.37	85,092.80	85,526.75

Source: Ontario Department of Highways.

MOTOR VEHICLE REGISTRATIONS¹, CANADA AND ONTARIO, SELECTED YEARS 1939 TO 1960

	Canada	Ontario	Ontario as % of Canada
1939	1,439,245	682,891	47.4
1946	1,622,463	711,106	43.8
1951	2,872,420	1,205,098	42.0
1952	3,155,824	1,291,753	40.9
1953	3,430,672	1,406,119	41.0
1954	3,644,589	1,489,980	40.9
1956	4,230,647	1,710,240	40.4
1957	4,487,122	1,793,499	40.0
1958	4,723,126	1,868,922	39.6
1959	5,011,506	1,973,737	39.4
1960 ²	5,250,000	2,062,500	39.3

¹Does not include trailers.

²Preliminary.

Source: Motor Vehicles Branch, Ontario Department of Transport.

MOTOR VEHICLE REGISTRATIONS BY TYPE, ONTARIO, 1946 AND 1956 TO 1960

	Total ¹	Passenger	Commercial	Dual Purpose	Motorcycle	Trailers
1946	711,106	585,604	117,217	1,303	6,982	n.a.
1956	1,710,240	1,365,874	297,329	35,385	11,652	100,472
1957	1,793,499	1,431,438	304,568	45,971	11,522	109,150
1958	1,868,922	1,492,039	308,317	58,418	10,148	119,917
1959	1,973,737	1,573,365	316,272	74,014	10,086	132,743
1960 ²	2,062,470	1,640,338	320,185	92,586	9,361	136,511

n.a. Not available.

¹Total does not include trailers.

²Preliminary.

Source: Motor Vehicles Branch, Ontario Department of Transport.

NATURAL GAS PIPELINE MILEAGE, CANADA AND ONTARIO, SELECTED YEARS 1946 TO 1959

	Gathering and Transmission			Distribution		
	Canada	Ontario	Ontario as % of Canada	Canada	Ontario	Ontario as % of Canada
1946	3,218	2,352	73.1	2,844	2,071	72.8
1951	3,461	2,203	63.7	3,462	2,050	59.2
1955	3,995	2,380 ¹	59.6	6,029	4,336	71.9
1956	4,532	2,552 ¹	56.3	6,236	4,383	70.3
1957	5,854	3,712 ¹	63.4	6,864	4,863	70.8
1958	8,199 ²	5,692 ²	69.4	9,212 ²	7,079 ³	76.8
1959	8,256 ²	5,789 ³	70.1	9,962 ²	7,579 ³	76.1

¹Includes some pipeline owned by distributing firms.

²Based upon the Ontario Energy Board estimate of mileage in Ontario.

³Estimated by the Ontario Energy Board.

Source: Dominion Bureau of Statistics, *The Crude Petroleum and Natural Gas Industry*; the Ontario Energy Board.

OIL PIPELINE MILEAGE, CANADA AND PROVINCES, 1951 TO 1959

	Canada	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon Territory
1951	1,577	149	—	278	438	712	—	—
1952	2,500	204	590	278	496	932	—	—
1953	3,794	204	801	416	592	1,317	464	—
1954	4,656	204	808	508	1,059	1,607	470	—
1955	5,079	206	809	541	1,135	1,918	470	—
1956	6,051	211	848	632	1,436	2,452	472	—
1957	6,873	211	1,004	713	1,654	2,773	518	—
1958	7,145	202	1,009	720	1,803	2,896	518	—
1959	7,808	202	1,009	724	1,912	3,331	523	107

Note: Gathering lines included in mileages for Alberta for all years and for Saskatchewan and Manitoba from 1954 to 1959, inclusive.

Source: Dominion Bureau of Statistics, *Oil Pipe Line Transport*.

OIL PIPELINE MILEAGE BY COMPANIES, ONTARIO, 1952 TO 1959

	1952	1953	1954	1955	1956	1957	1958	1959
Imperial Oil Limited—								
Sarnia Products Pipe Line	203	203	203	203	242	242	242	242
Interprovincial Pipe Line Company	—	—	7	7	7	163	166	166
Sun-Canadian Pipe Line Co. Ltd.	—	211	211	211	211	211	211	211
Trans-Northern Pipe Line Company	387	387	387	388	388	388	390	390
Total	590	801	808	809	848	1,004	1,009	1,009

Source: Dominion Bureau of Statistics, *Oil Pipe Line Transport*.

XII—COMMUNICATIONS

NUMBER OF TELEPHONES, ONTARIO, 1939 TO 1960

	Operated By		Total
	Independent Systems ¹	Bell Telephone Company of Canada	
1939	113,664	515,967	629,631
1940	116,291	544,346	660,637
1941	119,204	585,465	704,669
1942	124,754	610,299	735,053
1943	127,104	628,826	755,930
1944	133,097	647,485	780,582
1945	142,718	687,037	829,755
1946	149,575	772,943	922,518
1947	157,302	852,290	1,009,592
1948	162,895	936,637	1,099,532
1949	173,265	1,018,279	1,191,544
1950	174,650	1,091,614	1,266,264
1951	161,559	1,162,688	1,324,247
1952	168,436	1,240,885	1,409,321
1953	174,634	1,329,600	1,504,234
1954	169,368	1,429,250	1,598,618
1955	174,828	1,552,280	1,727,108
1956	176,052	1,692,846	1,868,898
1957	173,455	1,801,742	1,975,197
1958	175,456	1,909,122	2,084,578
1959	178,882	2,021,863	2,200,745
1960	n.a.	2,131,467	n.a.

n.a. Not available.

¹Does not include telephones of systems owned or operated by Dominion or Provincial departments and commissions or by incorporated companies other than telephone companies.

Source: Ontario Telephone Service Commission; Bell Telephone Company of Canada, *Company Telephones By Exchanges*.

PART III



Economic Regions of Ontario

CONTENTS

	PAGE		PAGE
THE ECONOMIC REGIONS OF ONTARIO.....	237	PRICES AND TRADE.....	268
POPULATION.....	238	Consumer Price Indexes by Main Groups, Ottawa and Toronto, 1951 and 1955 to 1960.....	268
Population Trends (Text).....	238	Estimated Regional Distribution of Retail Sales, 1951 to 1959.....	269
Population of Economic Regions (Map).....	239	PERSONAL INCOME.....	269
Effect of Natural Increase and Migration on Regional Population Changes (Text).....	240	Estimated Regional Distribution of Personal Income, 1951 to 1959.....	269
Population Changes, 1951 to 1956, Counties and Regions	241	Estimated Regional Distribution of Per Capita Personal Income, 1951 to 1959.....	269
Percentage Change in Population, 1951 over 1941 and 1956 over 1951, Counties and Regions.....	242	Estimated Regional Distribution of Personal Disposable Income, 1951 to 1959.....	270
Regional Population as a Proportion of Total Popula- tion, 1901 to 1956.....	243	Estimated Regional Distribution of Salaries, Wages and Supplementary Labour Income, 1957 to 1959.....	270
Population by Age Groups, 1956, Counties and Regions	244	CAPITAL INVESTMENT.....	271
Population by Sex, 1956, Counties and Regions.....	246	Capital Investment in Manufacturing in Metropolitan Areas (Text).....	271
Rural-Urban Distribution of Population, 1951 and 1956, Counties and Regions.....	248	New Capital and Repair Investment in Manufacturing, 1956 to 1960, Selected Metropolitan Areas.....	271
Number of Families, 1956, Counties and Regions.....	251	NATURAL RESOURCE INDUSTRIES.....	272
Crude Birth and Death Rates, Estimated Age-Specific Fertility and Death Rates, 1956 and Net Migration Rates, 1951 to 1956, Regions.....	252	Agriculture (Text).....	272
Births, Marriages and Deaths, 1956 and 1959, Counties and Regions.....	252	Number of Livestock on Farms, 1951 and 1960, Counties and Regions.....	274
Population Projections (Text).....	255	Number of Poultry on Farms, 1951, 1959 and 1960, Regions.....	277
Projected Population, 1966, 1971 and 1976, Metropolitan Areas 50,000 and Over, Counties and Regions.....	255	Production of Creamery Butter, 1946 and 1957 to 1960, Regions.....	277
EMPLOYMENT AND EARNINGS.....	257	Production of Cheddar Cheese, 1946 and 1957 to 1960, Regions.....	277
Index Numbers of Employment, Industrial Composite, Selected Years 1947 to 1960, Selected Urban Areas...	257	Forestry and the Forest-Based Industries (Text).....	278
Index Numbers of Employment by Industry, 1958 to 1960, Selected Urban Areas.....	257	Principal Statistics of the Pulp and Paper Industry, 1958, Regions.....	278
Index Numbers of Employment in Manufacturing, 1956 to 1960, Regions.....	258	Principal Statistics of Sawmill Operations, 1958, Regions	278
Index Numbers of Employment in Mining, 1956 to 1960, Selected Regions.....	260	Commercial Fishing (Text).....	279
Index Numbers of Payrolls, Industrial Composite, 1958 to 1960, Selected Urban Areas.....	260	Commercial Catch and Marketed Value of Fish, Selected Years 1939 to 1959, Fisheries Districts.....	279
Index Numbers of Payrolls in Manufacturing, 1956 to 1960, Regions.....	261	Commercial Landings of Fish by Principal Species, 1959, Fisheries Districts.....	279
Index Numbers of Payrolls in Mining, 1956 to 1960, Selected Regions.....	263	Trapping and Fur Farming (Text).....	280
Average Weekly Wages and Salaries, Industrial Com- posite, Selected Years 1947 to 1960, Selected Urban Areas.....	263	Mineral Production (Text).....	280
Average Weekly Wages and Salaries in Manufacturing, 1956 to 1960, Regions.....	264	Gross Value of Mineral Production, 1945 and 1956 to 1958, Regions.....	281
Average Weekly Wages and Salaries in Mining, 1956 to 1960, Selected Regions.....	266	Gross Value of Mineral Production by Classes, 1958, Regions.....	282
Average Weekly Wages and Salaries by Industry, 1958 to 1960, Selected Urban Areas.....	267	Mineral Production, 1945, 1955 and 1958, Counties and Regions.....	282

	PAGE		PAGE
CONSERVATION.....	297	SURVEY OF PRODUCTION.....	322
Flood Control and Water Conservation Projects Completed or Under Way by Conservation Authorities, 1961.....	297	Estimated Regional Distribution of Net Value of Production by Industry, 1951 and 1954 to 1958.....	322
Conservation Areas and Park Facilities Developed or Planned by Conservation Authorities, 1961.....	299	TOURIST TRADE.....	323
ENERGY.....	300	Estimated Tourist Accommodation, 1959, Regions.....	323
Electric Energy Consumed By and Revenue Received From Ultimate Customers Served Directly or Indirectly by The Hydro-Electric Power Commission of Ontario, 1951, 1958 and 1959, Regions.....	300	Estimated Number of Motel Units, 1956 and 1959, Regions.....	324
MANUFACTURING.....	303	TRANSPORTATION.....	325
Survey of Manufacturing (Text).....	303	Selected Commodities Cleared Through the Welland and St. Lawrence Canals, Selected Years 1946 to 1960..	325
Manufacturing Establishments, Employees, Payrolls and Selling Value of Factory Shipments, 1958, Selected Urban Centres.....	304	Freight Carried Through the Welland and St. Lawrence Canals by Country of Loading and Unloading of Cargo, 1958 and 1959.....	325
Selling Value of Factory Shipments, 1946 and 1956 to 1958, Leading Cities and Metropolitan Areas.....	306	Commodities Loaded and Unloaded by Type of Service, Major Ontario Ports, 1958 and 1959.....	326
Principal Statistics of Manufacturing, 1946 and 1956 to 1958, Counties and Regions.....	307	Road and Highway Mileages by Type of Road, 1959, Counties and Regions.....	327
Principal Statistics of Manufacturing by Industrial Groups, 1958, Regions.....	312	Motor Vehicle Registrations, 1946 and 1959, Counties and Regions.....	329
CONSTRUCTION AND HOUSING.....	315	COMMUNICATIONS.....	332
Dwelling Units Started and Completed (Text).....	315	Number of Telephones, 1951, 1959 and 1960, Selected Cities.....	332
Dwelling Units Started and Completed, 1951 and 1958 to 1960, Centres 5,000 and Over.....	315	Estimated Regional Distribution of Telephones, 1951 and 1959.....	332
Value of Building Permits Issued (Text).....	317	Radio Stations, 1961, Centres and Regions.....	333
Value of Building Permits Issued, 1951 and 1958 to 1960, Regions.....	318	Television Stations, 1961, Centres and Regions.....	335
Value of Building Permits Issued, 1951 and 1958 to 1960, Metropolitan Areas.....	320	Estimated Distribution of Television Households, 1960, Selected Urban Areas, Counties and Regions.....	336
Value of Non-Residential Building Plans Approved, 1956 to 1959, Regions.....	321		
Value of Manufacturing Building Plans Approved, 1956 to 1959, Regions.....	321		

The Economic Regions of Ontario

The Province of Ontario is divided into ten economic regions, each of which is a combination of contiguous counties or districts, the normal political divisions and basic statistical units of the Province. Some of the larger regions are divided into sub-regions. This system fits into the over-all regional plan for the whole of Canada.

The division of Ontario into regions augments other methods of studying the economic development of the Province. A great variety of material can be made available on an area basis, thus simplifying the process of gathering and utilizing statistics. This is of special importance to persons concerned with analyzing the structure of a particular part of the Provincial economy. It should be realized, however, that these "general purpose" regions will not satisfy all requirements. In some instances a finer breakdown is essential, while, in others, a combination of regions or even a different grouping of the counties and districts will have more significance.

The plan for dividing Ontario into economic regions was conceived at the first Conference on Industrial Statistics held in February, 1947. The Canadian Manufacturers Association provided the Ontario Bureau of Statistics and Research (now incorporated in the present Department of Economics) with an industrial zoning plan of the Province which had been designed in 1940 in connection with a survey of industrial capacity. The Bureau extended these regional divisions to conform to county and district boundaries. Officials of the Dominion Bureau of Statistics and the Economic Research Branch of the Department of Trade and Commerce were consulted. The latter prepared tables and county outline maps detailing the location of industry, types of agricultural production, the distribution of gainfully occupied persons according to major industrial groups and many other factors. Contiguous counties and districts with similar economic structure were combined and a system of nineteen economic regions was evolved.

Upon approval of this plan, the Ontario Bureau of Statistics and Research undertook a detailed study of each of the regions to determine major types of economic activity and the contribution of each area to the Provincial economy as a whole. It is considered that this was the first comprehensive attempt to present and analyze economic data about different areas of the Province.

In 1951, the Economic and Statistics Branch of the Department of Defence Production initiated research relating to the economic zoning of Canada in order to assess the regional impact of defence production and resources development. The "Economic Zoning of Canada and the D.D.P. Geographic Code", published in 1953, showed the results of this work. A sequel was

issued the following year. Ontario officials were able to bring to the consideration of this new plan their experience gained in analyzing the original nineteen regions of the Province. A revised system was set up—the present plan which divides Ontario into ten economic regions.

Utilization of the regional divisions of the Province has not only continued, but has been greatly extended in recent years. As an important part of the Ontario Government's program to encourage a balanced and even growth throughout the Province, regional development associations have been established under the Trade and Industry Branch of the Department of Commerce and Development. Seven such regional associations are now in operation: Eastern Ontario, Northwestern Ontario, Georgian Bay, Lake Ontario, Northeastern Ontario, Mid-Western Ontario and Niagara.

THE ECONOMIC REGIONS AND SUB-REGIONS OF ONTARIO SHOWING DISTRIBUTION OF COUNTIES AND DISTRICTS

50 Eastern Ontario <i>A—Ottawa Valley</i> Carleton Lanark Prescott Renfrew Russell <i>B—Upper St. Lawrence</i> Dundas Frontenac Glengarry Grenville Leeds Stormont	55 Lake St. Clair <i>A—Border</i> Essex Kent <i>B—Lambton</i> Lambton
51 Lake Ontario Durham Haliburton Hastings Lennox and Addington Northumberland Peterborough Prince Edward Victoria	56 Upper Grand River Huron Perth Waterloo Wellington
52 Metropolitan Halton Ontario Peel York	57 Georgian Bay <i>A—Blue Water</i> Bruce Dufferin Grey Simcoe <i>B—Highlands</i> Muskoka Parry Sound
53 Niagara <i>A—Burlington</i> Brant Wentworth <i>B—Niagara</i> Haldimand Lincoln Welland	58 Northeastern Ontario <i>A—Clay Belt</i> Cochrane Nipissing Timiskaming <i>B—Nickel Range</i> Manitoulin Sudbury <i>C—Sault</i> Algoma
54 Lake Erie Elgin Middlesex Norfolk Oxford	59 Lakehead-Northwestern Ontario Kenora (Incl. Patricia) Rainy River Thunder Bay

NOTE: See Population Density Map for geographic location of economic regions and counties.

The Department of Economics has also expanded its presentation of economic and statistical material on a regional basis. The present publication, "Ontario—Its Economic and Social Aspects", which is the ninth survey of Ontario to be prepared and published by the staff of the Department, contains a complete section on Ontario's economic regions. In addition, the Economic Statistics

Branch of the Department is preparing a series of studies on the individual economic regions of the Province. Four have already been published. The first covered the Georgian Bay Region, while subsequent reports dealt with Northeastern Ontario, Northwestern Ontario and Eastern Ontario, respectively. Studies on the Lake Ontario and Niagara Regions are being prepared.

Population

Population Trends

Over the past 50 years, the rate of increase of Ontario's population has been highly variable. Nevertheless, since 1951, a record rate of approximately 3.2 per cent per annum has been maintained. High birth rates, declining death rates and high levels of immigration have all contributed to this rapid rise. While the expansion of the Province's population has affected all counties and regions, a closer look at the individual counties reveals a startling variation in the rate of growth. More than half of the total Provincial population increase between 1951 and 1956 was added in two regions—Metropolitan and Niagara. Eight other rapidly growing counties or districts—Carleton, Essex, Algoma, Sudbury, Lambton, Middlesex, Waterloo and Simcoe—accounted for another 26 per cent.

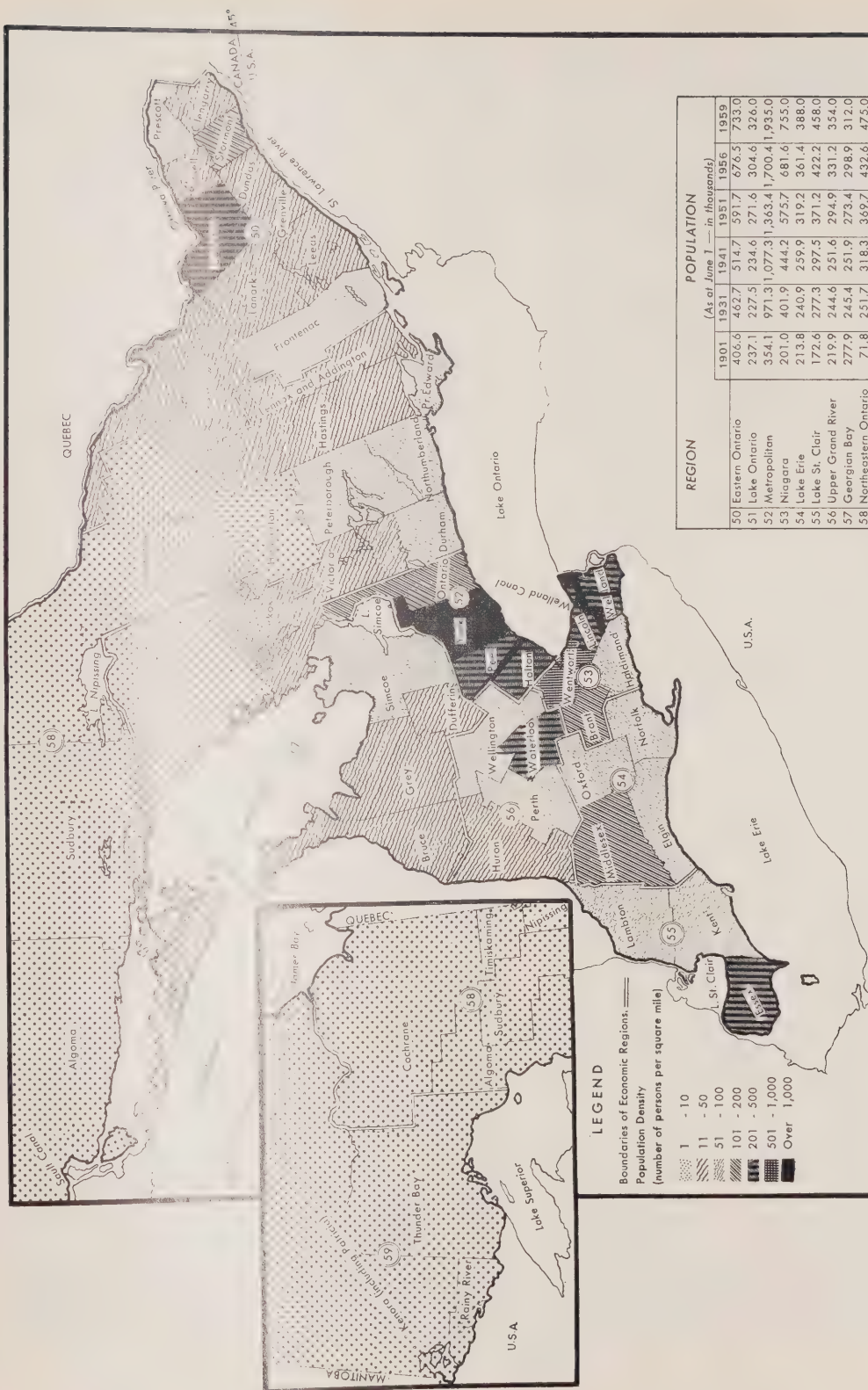
In many of the rural areas and in some of the northern districts, population growth has been small and largely confined to the older age groups or to children under 15. Such counties as Russell, Prescott, Dundas and Gengarry in Eastern Ontario; Haliburton in the Lake Ontario Region; Bruce, Dufferin, Grey, Muskoka and Parry Sound in Georgian Bay; and Timiskaming and Manitoulin in Northeastern Ontario, have shown very little growth. Recent high birth rates have added to the population in some of these areas, but most of this increase has been in the younger age groups, and it is quite possible that this addition is only temporary. If, when these children reach maturity, they go elsewhere to look for work, there could even be a slight decline in the population of some of these areas within the next ten years.

A closer look at some of the earlier trends in population growth in the counties and regions gives considerable insight into possible future growth patterns. The present trend toward increasing population concentration in the industrial areas of the Metropolitan and Niagara regions started at the beginning of the century. In 1901, 16.2 per cent of the Province's population lived in the Metropolitan Region. This proportion has been steadily increasing; by 1956 it reached 31.5 per cent. The same trend is evident in the Niagara Region where the propor-

tion of total Provincial population increased from 9.2 per cent to 12.6 per cent during these 55 years. These ratios have shown a fairly steady rate of increase, and it is quite likely that the population in these two regions will continue to grow at relatively faster rates than the rest of the Province.

Consistent trends were also evident in some of the slower growing regions. In the Eastern Ontario, Lake Ontario, Lake Erie, Upper Grand River and Georgian Bay regions, population has been increasing at consistently lower rates than it has in the Province as a whole. These five regions together now account for only about 36 per cent of the Province's population, while in 1901 they accounted for 62 per cent. The Lake St. Clair, Northeastern and Lakehead-Northwestern regions have not shown any consistent trends in rates of growth relative to the Provincial total. In the Lake St. Clair Region, for example, Essex County grew very rapidly while, until World War II, the neighbouring counties of Kent and Lambton showed almost no growth. Since 1941, Kent County has been growing at a moderate rate, mainly as a result of the extension of the industrial expansion in Essex across the county line, and Lambton has grown slightly more rapidly than the Province as a whole.

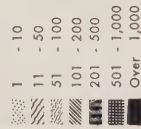
Some of the northern areas have had widely varying rates of growth from time to time. The early mineral discoveries and expansion of the forest-based industries resulted in a rapidly growing population in the Clay Belt Sub-region until the nineteen thirties, but since then most of this area has had a substantially unchanged population. Manitoulin District has maintained a small population of about 11,000 since 1901 with only slight variations. On the other hand, the Sault Sub-region has grown steadily at a rate almost identical with the rate of growth in the Province as a whole. The discovery of more mineral deposits in this area will probably keep it growing at a relatively rapid rate. The Lakehead-Northwestern Region had a very rapidly growing population until the war years and since then has been keeping pace with the Province as a whole. The opening of the St. Lawrence Seaway may increase the importance of Port Arthur and Fort William as ports and again accelerate the rate of growth in this area.



LEGEND

Boundaries of Economic Regions. —

Population Density
(number of persons per square mile)



REGION	POPULATION (As at June 1 — in thousands)									
	1901	1931	1941	1951	1956	1959				
50 Eastern Ontario	406.6	462.7	514.7	591.7	676.5	733.0				
51 Lake Ontario	237.1	227.5	234.6	271.6	304.6	326.0				
52 Metropolitan	334.1	971.3	1,077.3	1,363.4	1,700.4	1,935.0				
53 Niagara	201.0	401.9	444.2	575.7	681.6	755.0				
54 Lake Erie	213.8	240.9	259.9	319.2	361.4	388.0				
55 Lake St. Clair	172.6	277.3	297.5	371.2	422.2	458.0				
56 Upper Grand River	219.9	244.6	251.6	294.9	331.2	354.0				
57 Georgian Bay	277.9	245.4	251.9	273.4	298.9	312.0				
58 Northeastern Ontario	71.8	251.7	318.3	369.7	432.6	475.0				
59 Lakehead-N.W. Ont.	28.1	108.4	137.7	166.7	195.5	216.0				
Grand Total	2,182.9	3,431.7	3,787.7	4,597.3	5,404.9	5,952.0				

Note:
1959 Total Estimated by the Dominion Bureau of Statistics
1959 Regional Data Estimated by the Ontario Dept. of Economics

ONTARIO
Population of Economic Regions
1901 to 1959

The trend toward the concentration of population in the industrial areas of the Metropolitan and Niagara regions was accelerated during the War with conversion to wartime production and the development of additional wartime industries in these areas. Since the War, the increase in Canadian population, rising wage rates and a generally increased standard of living throughout the country have further boosted demand for the products of the secondary manufacturing industries, a majority of which are located in this small industrial area. It seems reasonable to assume that many new industries will continue to prefer this area because of its central location with regard to both markets and material supplies and also because of its fairly large pool of skilled labour. It is probable that population will continue to grow more rapidly in the Metropolitan and Niagara regions than in the rest of the Province.

There are, of course, exceptions to this pattern of growth. The development of one industry in a relatively non-industrial area may attract complementary industries and result in unforeseeable expansion. For example, the establishment of the Polymer Corporation in Sarnia during the war years brought a mushrooming petro-chemical industry into that area. The City's population, which had been fairly static since 1931, doubled in size from 1941 to 1951 and increased by more than 25 per cent from 1951 to 1956.

Supplies of water, and the availability of sewer and power facilities are also determining factors in the possible growth of particular areas. Thus, shortages of water resources have begun to hamper the growth of some cities in the central part of Southern Ontario. Improvements being planned by the Water Resources Commission in collaboration with these communities may permit an acceleration in their growth within the period under study. Such improvements could significantly change the growth outlook in some of the communities concerned, although they are not likely to alter the long-term trend toward an increased concentration of population in the already heavily industrialized areas.

Along with the movement of the population to industrial areas there has been an acceleration in the movement of people from farms to cities and towns. More than 70 per cent of the 1951 to 1956 population increase occurred in the urban areas of cities having a population of 10,000 or more. Although it is difficult to tabulate accurately the effect of this growth on the rural areas surrounding such cities, the trends in the rural non-farm population and in some of the townships in which these cities are situated would indicate that a substantial portion of rural growth has been in the immediate vicinity of urban areas. The gradual decline in farm population appears to be continuing. Such small increases as have occurred have been largely in the very young and very old age groups.

New mining developments have resulted in rapid population increases in local areas such as Bancroft, Elliot Lake

and Atikokan, although the absolute increase in such areas is small compared with the growth in cities like Toronto, Hamilton, St. Catharines, Windsor or Sudbury. In certain of these localities, where mining and industrial developments have brought a steady growth over a long period, it can be assumed that expansion will continue. In others, changes in markets could have a very serious effect on the community and the population could decline as rapidly as it increased. The increasing attention being given to the search for minerals in Canada will, no doubt, lead to the opening up of new areas in Northern Ontario within the next 20 years. While it is not possible to foresee precisely where these discoveries will be made, some allowance for such growth has been made.

The long-term effects of the St. Lawrence Seaway are also difficult to assess. While a substantial increase in population has been projected for the Lakehead-North-western Region, it is possible that the Seaway will increase both the traffic to and from Western Canada and the accessibility of the Region to markets and supplies in central Canada to such an extent that population growth in the Lakehead ports will be faster than anticipated. In addition, it is difficult to determine which ports on the Great Lakes will receive the most benefit from an increase in shipping and to predict the extent to which towns and cities along the St. Lawrence will be affected. Some of the present trans-shipment points, Prescott for example, may lose much of their business to terminal ports such as Montreal.

Effect of Natural Increase and Migration on Regional Population Changes

The relative rates of growth of population in local areas of the Province rest much less upon births and deaths among the local population than upon the economic prospects for each area. An economically static area may experience a sudden upsurge in the rate of population growth as a result of increased birth rates but, unless this growth is accompanied by an expansion of economic opportunity, it is likely to be only temporary. When the new babies reach maturity they will probably move out to other parts of the Province where more active economic development offers them wider opportunities. When we look at the population trends of some of the rural counties of Ontario during the past 50 years, we can see the effects of the economy on population growth. Birth rates have always been higher in the rural areas than in the rest of the Province yet the population in most of the rural counties has changed very little in the past half century. During the past 15 years, the very high post-war birth rates have enlarged the population in many of these areas, but unless new industries move in within the next few years the population will probably level off or even show a decline when these post-war babies reach working age.

Crude birth rates indicate the net effect on population of variations in fertility rates and age distribution among regions and counties. In the Nickel Range Sub-region there were 34.5 births per 1,000 population in 1956 and in Kenora and Rainy River districts, 31.0 and 31.8, respectively. Rural counties also tended to show relatively high crude birth rates, although there were many exceptions: in Elgin, Bruce, Dufferin, Grey, Victoria, Haliburton, Leeds and Lanark, for instance, the crude rates were below the Provincial average, varying from 21.0 to 22.9. In most of these counties there is a fairly high concentration of older people and consequently a low crude birth rate. Urban areas generally tend to have low birth rates, but here again there are exceptions. Halton and Peel counties in the Metropolitan Region each have higher than average birth rates because many of their citizens are young persons living in new suburban communities.

Death rates also vary markedly in different regions. The outlying areas have higher mortality rates for all age groups than do the urban industrial areas. This is most noticeable in the very young and the very old age groups. In the northern districts in 1956, there were an estimated 7.8 to 7.9 deaths for every 1,000 children under five years of age, compared with 6.8 in the Province as a whole and 6.6 in the Metropolitan Region. Likewise, among people over 65 there were 70.9 deaths per 1,000 in the Nickel Range Sub-region, while there were fewer than 60 deaths per 1,000 in this age group in the Metropolitan Region. However, crude death rates may give us quite another picture. Even though age-specific mortality rates are higher than average in the northern areas, crude death rates—7.2 per 1,000 in northeastern Ontario and 7.8 in Lakehead-Northwestern Ontario—are the lowest in the Province because of the relatively young population in the districts. On the other hand in the Georgian Bay Region, a combination of relatively high age-specific death rates and an aging population have resulted in a crude death rate of 10.6 per 1,000, the highest in the Province.

One of the major factors influencing the population growth of the various regions is the rate of migration, both into and out of the Province, and from area to area within the Province. It is difficult to obtain much reliable information on population movements, but it is apparent that there has always been a tendency for people to move to prosperous and developing areas. Increasing knowledge of other areas and better transportation facilities are constantly making it easier for people to move. The varying importance of migration on the increase of population in each region between 1951 and 1956 is shown in the accompanying tabular material. Only Manitoulin District suffered an actual decline in population as a result of emigration, although many of the rural counties lost part of the natural increase of their population. Prescott, Russell, Glengarry, Haliburton, Huron, Perth, Grey,

Bruce, Muskoka, Parry Sound, Cochrane and Timiskaming all lost a substantial portion of their natural increase through population movements. Even in the fairly industrialized county of Brant, there was a net emigration of population during that period.

It is evident that many factors affect the growth of the population of a region. Reasonably accurate predictions can be made about the future behaviour of some of these factors. But many others are either unstable or are tied to such a wide range of imponderables that accurate forecasting is almost impossible. The projections made in this report are based upon an examination of many factors, and probably indicate roughly the general trend of population in the various regions. To claim any greater accuracy than this would be to disregard the record of mistakes and failures among most previous attempts to predict future population.

POPULATION CHANGES, ONTARIO, 1951 TO 1956

COUNTIES AND REGIONS			
	Natural Increase	Net Migration	Population Increase
EASTERN ONTARIO			
A—Ottawa Valley			
Carleton.....	22,576	17,807	40,383
Lanark.....	2,046	378	2,424
Prescott.....	2,587	-1,872	715
Renfrew.....	7,932	3,597	11,529
Russell.....	1,817	-489	1,328
Sub-total.....	36,958	19,420	56,378
B—Upper St. Lawrence			
Dundas.....	1,025	135	1,160
Frontenac.....	6,286	4,149	10,435
Glengarry.....	1,306	-315	991
Grenville.....	1,085	2,433	3,518
Leeds.....	2,472	1,774	4,246
Stormont.....	5,282	2,712	7,994
Sub-total.....	17,456	10,888	28,344
TOTAL, EASTERN ONTARIO.....	54,414	30,308	84,722
LAKE ONTARIO			
Durham.....	2,702	3,010	5,712
Haliburton.....	575	-233	342
Hastings.....	7,391	2,056	9,447
Lennox & Addington.....	1,441	626	2,067
Northumberland.....	2,188	2,348	4,536
Peterborough.....	5,920	1,272	7,192
Prince Edward.....	1,523	1,063	2,586
Victoria.....	1,307	-186	1,121
TOTAL, LAKE ONTARIO.....	23,047	9,956	33,003
METROPOLITAN			
Halton.....	5,175	19,119	24,294
Ontario.....	9,480	11,872	21,352
Peel.....	7,342	20,093	27,435
York.....	99,843	164,136	263,979
TOTAL, METROPOLITAN.....	121,840	215,220	337,060
NIAGARA			
A—Burlington			
Brant.....	6,049	-914	5,135
Wentworth.....	25,565	24,590	50,155
Sub-total.....	31,614	23,676	55,290
B—Niagara			
Haldimand.....	1,965	-36	1,929
Lincoln.....	9,293	13,081	22,374
Welland.....	13,524	12,849	26,373
Sub-total.....	24,782	25,894	50,676
TOTAL, NIAGARA.....	56,396	49,570	105,966

POPULATION CHANGES, ONTARIO, 1951 TO 1956—Continued

COUNTIES AND REGIONS			
	Natural Increase	Net Migration	Population Increase
LAKE ERIE			
Elgin.....	3,189	-593	2,596
Middlesex.....	13,583	15,175	28,758
Norfolk.....	3,544	-130	3,414
Oxford.....	4,512	2,898	7,410
TOTAL, LAKE ERIE.....	24,828	17,350	42,178
LAKE ST. CLAIR			
A—Border			
Essex.....	21,907	7,844	29,751
Kent.....	7,407	-1,173	6,234
Sub-total.....	29,314	6,671	35,985
B—Lambton			
Lambton.....	8,178	6,801	14,979
Sub-total.....	8,178	6,801	14,979
TOTAL, LAKE ST. CLAIR.....	37,492	13,472	50 964
UPPER GRAND RIVER			
Huron.....	3,571	-1,123	2,448
Perth.....	3,309	-836	2,473
Waterloo.....	12,858	9,793	22,651
Wellington.....	5,346	3,415	8,761
TOTAL, UPPER GRAND RIVER....	25,084	11,249	36,333
GEORGIAN BAY			
A—Blue Water			
Bruce.....	2,379	-1,620	759
Dufferin.....	777	226	1,003
Grey.....	3,466	-1,455	2,011
Simcoe.....	9,478	11,056	20,534
Sub-total.....	16,100	8,207	24,307
B—Highlands			
Muskoka.....	1,693	-1,272	421
Parry Sound.....	2,270	-1,546	724
Sub-total.....	3,963	-2,818	1,145
TOTAL, GEORGIAN BAY.....	20,063	5,389	25,452
NORTHEASTERN ONTARIO			
A—Clay Belt			
Cochrane.....	10,420	-7,502	2,918
Nipissing.....	6,541	3,394	9,935
Timiskaming.....	5,293	-5,045	248
Sub-total.....	22,254	-9,153	13,101
B—Nickel Range			
Manitoulin.....	1,008	-1,162	-154
Sudbury.....	18,302	14,083	32,385
Sub-total.....	19,310	12,921	32,231
C—Sault			
Algoma.....	8,041	9,522	17,563
Sub-total.....	8,041	9,522	17,563
TOTAL, NORTHEASTERN ONTARIO	49,605	13,290	62,895
LAKEHEAD—NORTHWESTERN ONTARIO			
Kenora.....	4,650	3,294	7,944
Rainy River.....	2,749	602	3,351
Thunder Bay.....	11,170	6,353	17,523
TOTAL, LAKEHEAD—NORTHWESTERN ONTARIO.....	18,569	10,249	28,818
GRAND TOTAL, ONTARIO¹.....	432,000	375,000	807,000

¹The total for Ontario does not precisely correspond with the sum of all the counties because the Provincial natural increase was tabulated from monthly data for the periods June 1, 1951 to December 31, 1951 and January 1, 1956 to May 31, 1956, whereas for the counties these periods were taken as 7/12 and 5/12 of total natural increase for the respective years.

Source: Registrar-General's Branch, Department of the Provincial Secretary, *Vital Statistics*; Dominion Bureau of Statistics, *Census of Canada*.

PERCENTAGE CHANGE IN POPULATION, ONTARIO, 1951 OVER 1941 AND 1956 OVER 1951

COUNTIES AND REGIONS		
	1951/1941 %	1956/1951 %
EASTERN ONTARIO		
A—Ottawa Valley		
Carleton.....	19.6	16.7
Lanark.....	7.4	6.8
Prescott.....	1.2	2.8
Renfrew.....	21.9	17.3
Russell.....	1.2	7.5
Sub-total.....	16.4	14.5
B—Upper St. Lawrence		
Dundas.....	-2.4	7.3
Frontenac.....	23.1	15.8
Glengarry.....	-5.5	5.6
Grenville.....	6.6	20.6
Leeds.....	7.7	10.9
Stormont.....	18.5	16.5
Sub-total.....	12.3	13.9
TOTAL, EASTERN ONTARIO.....	15.0	14.3
LAKE ONTARIO		
Durham.....	19.4	19.0
Haliburton.....	14.6	4.5
Hastings.....	17.3	12.7
Lennox & Addington.....	5.8	10.6
Northumberland.....	8.8	13.5
Peterborough.....	28.3	11.8
Prince Edward.....	10.8	13.9
Victoria.....	4.6	4.1
TOTAL, LAKE ONTARIO.....	15.8	12.2
METROPOLITAN		
Halton.....	54.3	55.2
Ontario.....	32.5	24.5
Peel.....	76.5	49.3
York.....	23.7	22.4
TOTAL, METROPOLITAN.....	26.6	24.7
NIAGARA		
A—Burlington		
Brant.....	28.5	7.0
Wentworth.....	28.7	18.8
Sub-total.....	28.7	16.3
B—Niagara		
Haldimand.....	10.5	8.0
Lincoln.....	37.3	25.0
Welland.....	31.3	21.4
Sub-total.....	31.0	21.4
TOTAL, NIAGARA.....	29.6	18.4
LAKE ERIE		
Elgin.....	20.3	6.5
Middlesex.....	27.5	17.7
Norfolk.....	19.9	8.0
Oxford.....	15.4	10.9
TOTAL, LAKE ERIE.....	22.8	13.2
LAKE ST. CLAIR		
A—Border		
Essex.....	24.6	13.7
Kent.....	19.3	7.9
Sub-total.....	23.2	12.1
B—Lambton		
Lambton.....	31.7	20.0
Sub-total.....	31.7	20.0
TOTAL, LAKE ST. CLAIR.....	24.8	13.7
UPPER GRAND RIVER		
Huron.....	12.7	5.0
Perth.....	5.8	4.7
Waterloo.....	27.8	18.0
Wellington.....	12.6	13.1
TOTAL, UPPER GRAND RIVER.....	17.2	12.3

PERCENTAGE CHANGE IN POPULATION, ONTARIO, 1951 OVER 1941 AND 1956 OVER 1951 —Continued

COUNTIES AND REGIONS					
	1951/1941	1956/1951		1951/1941	1956/1951
	%	%		%	%
GEORGIAN BAY					
A—Blue Water			B—Nickel Range		
Bruce.....	-0.9	1.8	Manitoulin.....	3.4	-1.4
Dufferin.....	3.5	6.9	Sudbury.....	35.6	29.6
Grey.....	3.1	3.4	Sub-total.....	31.8	26.7
Simcoe.....	22.3	19.3	C—Sault		
Sub-total.....	10.7	11.0	Algoma.....	24.0	27.2
B—Highlands			Sub-total.....	24.0	27.2
Muskoka.....	13.2	1.7	TOTAL, NORTHEASTERN ONTARIO.....		
Parry Sound.....	-9.0	2.6		16.1	17.0
Sub-total.....	0.3	2.2	LAKEHEAD—NORTHWESTERN ONTARIO		
TOTAL, GEORGIAN BAY.....			Kenora.....	17.5	20.3
	8.5	9.3	Rainy River.....	15.7	15.1
NORTHEASTERN ONTARIO			Thunder Bay.....	23.7	16.6
A—Clay Belt			TOTAL, LAKEHEAD—NORTHWESTERN ONTARIO		
Cochrane.....	3.9	3.5	ONTARIO.....	21.1	17.3
Nipissing.....	16.6	19.7	GRAND TOTAL, ONTARIO.....		
Timiskaming.....	-1.2	0.5		21.4	17.6
Sub-total.....	5.6	7.1	Source: Dominion Bureau of Statistics, Census of Canada.		

Source: Dominion Bureau of Statistics, *Census of Canada*.

REGIONAL POPULATION AS A PROPORTION OF TOTAL POPULATION, ONTARIO, 1901 TO 1956

		1901	1911	1921	1931	1941	1951	1956
		(Thousands)						
EASTERN ONTARIO	No.	407	415	440	463	515	592	676
	%	(18.6)	(16.4)	(15.0)	(13.5)	(13.6)	(12.9)	(12.5)
A—Ottawa Valley	No.	234	254	281	298	333	388	444
	%	(10.7)	(10.0)	(9.6)	(8.7)	(8.8)	(8.4)	(8.2)
B—Upper St. Lawrence	No.	173	161	159	165	182	204	232
	%	(7.9)	(6.4)	(5.4)	(4.8)	(4.8)	(4.4)	(4.3)
LAKE ONTARIO	No.	237	231	225	227	235	272	305
	%	(10.9)	(9.1)	(7.7)	(6.6)	(6.2)	(5.9)	(5.6)
METROPOLITAN	No.	354	530	743	971	1,077	1,363	1,700
	%	(16.2)	(21.0)	(25.3)	(28.3)	(28.4)	(29.7)	(31.5)
NIAGARA	No.	201	257	343	402	444	576	682
	%	(9.2)	(10.2)	(11.7)	(11.7)	(11.7)	(12.5)	(12.6)
A—Burlington	No.	118	158	207	243	263	339	394
	%	(5.4)	(6.3)	(7.1)	(7.1)	(7.0)	(7.4)	(7.3)
B—Niagara	No.	83	99	136	158	181	237	287
	%	(3.8)	(3.9)	(4.7)	(4.6)	(4.8)	(5.1)	(5.3)
LAKE ERIE	No.	214	216	225	241	260	319	361
	%	(9.8)	(8.6)	(7.7)	(7.0)	(6.8)	(6.9)	(6.7)
LAKE ST. CLAIR	No.	172	175	213	277	297	371	422
	%	(7.9)	(6.9)	(7.3)	(8.1)	(7.9)	(8.1)	(7.8)
A—Border	No.	116	124	160	222	240	296	332
	%	(5.3)	(4.9)	(5.5)	(6.5)	(6.4)	(6.4)	(6.1)
B—Lambton	No.	56	51	53	55	57	75	90
	%	(2.6)	(2.0)	(1.8)	(1.6)	(1.5)	(1.6)	(1.7)
UPPER GRAND RIVER	No.	220	219	227	244	252	295	331
	%	(10.1)	(8.7)	(7.7)	(7.1)	(6.7)	(6.4)	(6.1)
GEORGIAN BAY	No.	278	266	249	245	252	273	299
	%	(12.7)	(10.5)	(8.5)	(7.2)	(6.7)	(5.9)	(5.5)
A—Blue Water	No.	232	218	203	198	200	221	246
	%	(10.6)	(8.6)	(6.9)	(5.8)	(5.3)	(4.8)	(4.5)
B—Highlands	No.	46	48	46	47	52	52	53
	%	(2.1)	(1.9)	(1.6)	(1.4)	(1.4)	(1.1)	(1.0)
NORTHEASTERN ONTARIO	No.	72	149	185	252	318	370	433
	%	(3.3)	(5.9)	(6.3)	(6.3)	(7.3)	(8.0)	(8.0)
A—Clay Belt	No.	19	67	87	136	174	184	198
	%	(0.9)	(2.7)	(3.0)	(4.0)	(4.6)	(4.0)	(3.6)
B—Nickel Range	No.	28	41	53	69	92	121	153
	%	(1.3)	(1.6)	(1.8)	(2.0)	(2.4)	(2.6)	(2.8)
C—Sault	No.	25	41	43	47	52	65	82
	%	(1.1)	(1.6)	(1.5)	(1.4)	(1.4)	(1.4)	(1.5)
LAKEHEAD-NORTHWESTERN ONTARIO	No.	28	69	82	108	138	167	196
	%	(1.3)	(2.7)	(2.8)	(3.2)	(3.6)	(3.6)	(3.6)
TOTAL, ONTARIO	No.	2,183	2,527	2,934	3,432	3,788	4,598	5,405
	%	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Dominion Bureau of Statistics, *Census of Canada*.

POPULATION BY AGE GROUPS, ONTARIO, JUNE 1, 1956

COUNTIES AND REGIONS

		Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+	Median Age
EASTERN ONTARIO														
A—Ottawa Valley														
Carleton	No.	282,630	32,369	30,458	21,945	18,052	19,956	44,625	42,490	29,493	21,493	8,170	13,579	29.2
	%	(100.0)	(11.5)	(10.8)	(7.8)	(6.3)	(7.1)	(15.8)	(15.0)	(10.4)	(7.6)	(2.9)	(4.8)	
Lanark	No.	38,025	3,993	4,182	3,504	2,904	2,061	4,401	4,802	4,020	3,634	1,504	3,020	30.4
	%	(100.0)	(10.5)	(11.0)	(9.2)	(7.6)	(5.4)	(11.6)	(12.6)	(10.6)	(9.6)	(4.0)	(7.9)	
Prescott	No.	26,291	3,396	3,181	3,214	2,401	1,647	3,057	3,006	2,488	1,752	740	1,409	25.8
	%	(100.0)	(12.9)	(12.1)	(12.2)	(9.1)	(6.3)	(11.6)	(11.4)	(9.5)	(6.7)	(2.8)	(5.4)	
Renfrew	No.	78,245	10,773	9,415	6,896	6,030	5,836	11,603	9,622	6,916	5,293	2,077	3,784	25.1
	%	(100.0)	(13.8)	(12.0)	(8.8)	(7.7)	(7.5)	(14.8)	(12.3)	(8.8)	(6.8)	(2.7)	(4.8)	
Russell	No.	18,994	2,648	2,633	2,302	1,667	1,080	2,134	2,116	1,648	1,228	552	986	22.3
	%	(100.0)	(13.9)	(13.9)	(12.1)	(8.8)	(5.7)	(11.2)	(11.1)	(8.7)	(6.5)	(2.9)	(5.2)	
Sub-total	No.	444,185	53,179	49,869	37,861	31,054	30,580	65,820	62,036	44,565	33,400	13,043	22,778	28.0
	%	(100.0)	(12.0)	(11.3)	(8.5)	(7.0)	(6.9)	(14.8)	(14.0)	(10.0)	(7.5)	(2.9)	(5.1)	
B—Upper St. Lawrence														
Dundas	No.	16,978	1,890	1,833	1,575	1,218	965	2,123	2,059	1,804	1,500	672	1,339	29.7
	%	(100.0)	(11.1)	(10.8)	(9.3)	(7.2)	(5.7)	(12.5)	(12.1)	(10.6)	(8.8)	(4.0)	(7.9)	
Frontenac	No.	76,534	9,040	8,008	6,001	5,352	5,774	12,215	10,663	7,510	5,578	2,281	4,112	28.3
	%	(100.0)	(11.8)	(10.5)	(7.8)	(7.0)	(7.5)	(16.0)	(13.9)	(9.8)	(7.3)	(3.0)	(5.4)	
Glengarry	No.	18,693	2,302	2,385	2,151	1,437	878	1,978	2,093	1,833	1,539	687	1,410	26.0
	%	(100.0)	(12.3)	(12.8)	(11.5)	(7.7)	(4.7)	(10.6)	(11.2)	(9.8)	(8.2)	(3.7)	(7.5)	
Grenville	No.	20,563	2,362	2,176	1,771	1,427	1,139	2,725	2,678	2,178	1,835	730	1,542	30.2
	%	(100.0)	(11.5)	(10.6)	(8.6)	(6.9)	(5.5)	(13.3)	(13.0)	(10.6)	(8.9)	(3.6)	(7.5)	
Leeds	No.	43,077	4,510	4,238	3,611	2,996	2,650	5,497	5,726	4,905	3,899	1,685	3,360	31.4
	%	(100.0)	(10.5)	(9.8)	(8.4)	(7.0)	(6.1)	(12.7)	(13.3)	(11.4)	(9.1)	(3.9)	(7.8)	
Stormont	No.	56,452	7,282	6,607	5,318	4,511	4,050	8,334	7,149	5,565	3,716	1,349	2,571	25.5
	%	(100.0)	(12.9)	(11.7)	(9.4)	(8.0)	(7.2)	(14.8)	(12.7)	(9.8)	(6.6)	(2.4)	(4.5)	
Sub-total	No.	232,297	27,386	25,247	20,427	16,941	15,456	32,872	30,368	23,795	18,067	7,404	14,334	28.3
	%	(100.0)	(11.8)	(10.9)	(8.8)	(7.3)	(6.6)	(14.1)	(13.1)	(10.2)	(7.8)	(3.2)	(6.2)	
TOTAL, EASTERN ONTARIO	No.	676,482	80,565	75,116	58,288	47,995	46,036	98,692	92,404	68,360	51,467	20,447	37,112	28.1
	%	(100.0)	(11.9)	(11.1)	(8.6)	(7.1)	(6.8)	(14.6)	(13.7)	(10.1)	(7.6)	(3.0)	(5.5)	
LAKE ONTARIO														
Durham	No.	35,827	4,534	4,058	3,112	2,388	2,100	4,926	4,633	3,514	2,909	1,266	2,387	28.5
	%	(100.0)	(12.7)	(11.3)	(8.7)	(6.7)	(5.9)	(13.7)	(12.9)	(9.8)	(8.1)	(3.5)	(6.7)	
Haliburton	No.	8,012	904	898	780	582	435	965	1,060	889	749	282	468	29.2
	%	(100.0)	(11.3)	(11.2)	(9.7)	(7.3)	(5.5)	(12.1)	(13.2)	(11.1)	(9.3)	(3.5)	(5.8)	
Hastings	No.	83,745	10,533	9,795	7,505	5,984	5,713	12,121	11,043	7,903	5,929	2,564	4,655	26.9
	%	(100.0)	(12.6)	(11.7)	(9.0)	(7.1)	(6.8)	(14.5)	(13.2)	(9.4)	(7.1)	(3.0)	(5.6)	
Lennox & Addington	No.	21,611	2,620	2,396	2,019	1,542	1,219	2,629	2,660	2,247	1,811	802	1,666	28.8
	%	(100.0)	(12.1)	(11.1)	(9.4)	(7.1)	(5.6)	(12.2)	(12.3)	(10.4)	(8.4)	(3.7)	(7.7)	
Northumberland	No.	38,018	4,265	4,221	3,430	2,477	1,968	4,623	4,884	4,137	3,323	1,609	3,081	30.7
	%	(100.0)	(11.2)	(11.1)	(9.0)	(6.5)	(5.2)	(12.2)	(12.9)	(10.9)	(8.7)	(4.2)	(8.1)	
Peterborough	No.	67,981	8,344	7,839	5,811	4,465	4,109	9,876	9,488	6,896	4,893	2,166	4,094	28.5
	%	(100.0)	(12.3)	(11.5)	(8.5)	(6.8)	(6.1)	(14.5)	(14.0)	(10.1)	(7.3)	(3.2)	(6.0)	
Prince Edward	No.	21,145	2,586	2,375	1,783	1,441	1,427	2,970	2,582	2,060	1,695	657	1,569	28.2
	%	(100.0)	(12.2)	(11.2)	(8.4)	(6.8)	(6.6)	(14.1)	(12.2)	(9.8)	(8.0)	(3.1)	(7.4)	
Victoria	No.	28,248	2,909	2,974	2,447	1,838	1,444	3,147	3,500	3,348	2,768	1,229	2,644	33.0
	%	(100.0)	(10.3)	(10.5)	(8.7)	(6.5)	(5.1)	(11.1)	(12.4)	(11.8)	(9.8)	(4.4)	(9.4)	
TOTAL, LAKE ONTARIO	No.	304,587	36,695	34,556	26,887	20,717	18,415	41,257	39,850	30,994	24,077	10,575	20,564	28.6
	%	(100.0)	(12.0)	(11.3)	(8.8)	(6.8)	(6.0)	(13.6)	(13.1)	(10.2)	(7.9)	(3.5)	(6.8)	
METROPOLITAN														
Halton	No.	68,297	8,997	8,087	5,501	3,775	4,135	11,675	10,270	6,726	4,291	1,789	3,051	28.1
	%	(100.0)	(13.2)	(11.8)	(8.1)	(5.5)	(6.1)	(17.1)	(15.0)	(9.8)	(6.3)	(2.6)	(4.5)	
Ontario	No.	108,440	13,659	11,797	8,432	6,585	7,189	17,591	14,644	11,275	8,530	3,118	5,620	28.7
	%	(100.0)	(12.6)	(10.9)	(7.8)	(6.1)	(6.6)	(16.2)	(13.5)	(10.4)	(7.9)	(2.8)	(5.2)	
Peel	No.	83,108	10,960	9,718	6,819	4,771	4,956	13,849	13,116	8,296	5,262	2,026	3,335	28.1
	%	(100.0)	(13.2)	(11.7)	(8.2)	(5.7)	(6.0)	(16.7)	(15.8)	(10.0)	(6.3)	(2.4)	(4.0)	
York	No.	1,440,601	148,240	126,550	90,169	75,992	104,567	262,504	218,961	170,193	121,837	46,545	75,043	31.7
	%	(100.0)	(10.3)	(8.8)	(6.3)	(5.3)	(7.3)	(18.2)	(15.2)	(11.8)	(8.4)	(3.2)	(5.2)	
TOTAL, METROPOLITAN	No.	1,700,446	181,856	156,152	110,921	91,123	120,847	305,619	256,991	196,490	139,920	53,478	87,049	31.2
	%	(100.0)	(10.7)	(9.2)	(6.5)	(5.4)	(7.1)	(18.0)	(15.1)	(11.6)	(8.2)	(3.1)	(5.1)	
NIAGARA														
A—Burlington														
Brant	No.	77,992	8,845	8,589	6,448	5,065	4,730	10,880	10,823	8,589	6,433	2,688	4,902	29.9
	%	(100.0)	(11.3)	(11.0)	(8.3)	(6.5)	(6.1)	(14.0)	(13.9)	(11.0)	(8.2)	(3.4)	(6.3)	
Wentworth	No.	316,238	36,172	31,892	23,510	18,010	21,128	54,019	45,571	34,549	25,301	9,848	16,238	30.1
	%	(100.0)	(11.5)	(10.1)	(7.4)	(5.7)	(6.7)	(17.1)	(14.4)	(10.9)	(8.0)	(3.1)	(5.1)	
Sub-total	No.	394,230	45,017	40,481	29,958	23,075	25,858	64,899	56,394	43,138	31,734	12,536	21,140	30.0
	%	(100.0)	(11.4)	(10.3)	(7.6)	(5.9)	(6.5)	(16.5)	(14.3)	(10.9)	(8.0)	(3.2)	(5.4)	

POPULATION BY AGE GROUPS, ONTARIO, JUNE 1, 1956—Continued

COUNTIES AND REGIONS

		Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+	Median Age
B—Niagara														
Haldimand.....	No.	26,067	3,170	2,872	2,383	1,712	1,458	3,192	3,266	2,821	2,341	992	1,860	29.5
	%	(100.0)	(12.2)	(11.0)	(9.2)	(6.6)	(5.6)	(12.2)	(12.5)	(10.8)	(9.0)	(3.8)	(7.1)	
Lincoln.....	No.	111,740	13,315	11,962	9,301	7,303	7,145	17,309	15,782	11,997	8,723	3,482	5,421	29.0
	%	(100.0)	(11.9)	(10.7)	(8.3)	(6.5)	(6.4)	(15.5)	(14.1)	(10.8)	(7.8)	(3.1)	(4.9)	
Welland.....	No.	149,606	18,133	16,560	12,765	9,637	9,619	24,348	20,970	15,198	11,761	4,269	6,346	28.3
	%	(100.0)	(12.1)	(11.1)	(8.5)	(6.4)	(6.4)	(16.3)	(14.0)	(10.2)	(7.9)	(2.9)	(4.2)	
Sub-total.....	No.	287,413	34,618	31,394	24,449	18,652	18,222	44,849	40,018	30,016	22,825	8,743	13,627	28.7
	%	(100.0)	(12.1)	(10.9)	(8.5)	(6.5)	(6.3)	(15.6)	(13.9)	(10.4)	(7.9)	(3.1)	(4.8)	
TOTAL, NIAGARA.....	No.	681,643	79,635	71,875	54,407	41,727	44,080	109,748	96,412	73,154	54,559	21,279	34,767	29.5
	%	(100.0)	(11.7)	(10.6)	(8.0)	(6.1)	(6.5)	(16.1)	(14.1)	(10.7)	(8.0)	(3.1)	(5.1)	
LAKE ERIE														
Elgin.....	No.	59,114	6,000	5,785	4,890	4,088	3,442	7,986	7,598	6,822	5,674	2,297	4,532	31.7
	%	(100.0)	(10.1)	(9.7)	(8.3)	(6.9)	(5.8)	(13.5)	(12.8)	(11.5)	(9.7)	(3.9)	(7.7)	
Middlesex.....	No.	190,897	21,510	19,213	14,191	12,146	12,919	29,919	26,531	20,447	15,753	6,353	11,915	30.2
	%	(100.0)	(11.3)	(10.1)	(7.4)	(6.4)	(6.8)	(15.7)	(13.9)	(10.7)	(8.2)	(3.3)	(6.2)	
Norfolk.....	No.	46,122	5,377	4,854	4,071	3,541	3,007	6,291	5,574	5,323	4,087	1,482	2,515	28.5
	%	(100.0)	(11.7)	(10.5)	(8.8)	(7.7)	(6.5)	(13.6)	(12.1)	(11.5)	(8.9)	(3.2)	(5.5)	
Oxford.....	No.	65,228	7,289	6,713	5,432	4,417	4,122	9,046	8,385	7,435	5,766	2,261	4,362	30.1
	%	(100.0)	(11.2)	(10.3)	(8.3)	(6.8)	(6.3)	(13.9)	(12.8)	(11.4)	(8.8)	(3.5)	(6.7)	
TOTAL, LAKE ERIE.....	No.	361,361	40,176	36,565	28,584	24,192	23,490	53,242	48,088	40,027	31,280	12,393	23,324	30.2
	%	(100.0)	(11.1)	(10.1)	(7.9)	(6.7)	(6.5)	(14.8)	(13.3)	(11.1)	(8.7)	(3.4)	(6.4)	
LAKE ST. CLAIR														
A—Border														
Essex.....	No.	246,901	30,030	26,549	20,141	16,683	16,492	38,614	32,035	26,541	21,716	7,379	10,721	28.5
	%	(100.0)	(12.2)	(10.7)	(8.2)	(6.8)	(6.7)	(15.6)	(13.0)	(10.7)	(8.8)	(3.0)	(4.3)	
Kent.....	No.	85,362	10,285	9,330	7,636	6,277	5,370	11,931	10,794	9,131	6,938	2,711	4,959	28.2
	%	(100.0)	(12.1)	(10.9)	(8.9)	(7.4)	(6.3)	(14.0)	(12.6)	(10.7)	(8.1)	(3.2)	(5.8)	
Sub-total.....	No.	332,263	40,315	35,879	27,777	22,960	21,862	50,545	42,829	35,672	28,654	10,090	15,680	28.4
	%	(100.0)	(12.1)	(10.8)	(8.4)	(6.9)	(6.6)	(15.2)	(12.9)	(10.7)	(8.6)	(3.1)	(4.7)	
B—Lambton														
Lambton.....	No.	89,939	11,617	10,158	7,694	6,041	5,698	13,758	11,944	8,752	6,896	2,714	4,667	27.7
	%	(100.0)	(12.9)	(11.3)	(8.6)	(6.7)	(6.3)	(15.3)	(13.4)	(9.7)	(7.7)	(3.0)	(5.2)	
Sub-total.....	No.	89,939	11,617	10,158	7,694	6,041	5,698	13,758	11,944	8,752	6,896	2,714	4,667	27.7
	%	(100.0)	(12.9)	(11.3)	(8.6)	(6.7)	(6.3)	(15.3)	(13.3)	(9.7)	(7.7)	(3.0)	(5.2)	
TOTAL, LAKE ST. CLAIR.....	No.	422,202	51,932	46,037	35,471	29,001	27,560	64,303	54,773	44,424	35,550	12,804	20,347	28.3
	%	(100.0)	(12.3)	(10.9)	(8.4)	(6.9)	(6.5)	(15.2)	(13.0)	(10.5)	(8.5)	(3.0)	(4.8)	
UPPER GRAND RIVER														
Huron.....	No.	51,728	6,011	5,615	4,368	4,129	3,296	6,480	6,288	5,143	4,290	1,912	4,196	28.8
	%	(100.0)	(11.6)	(10.9)	(8.4)	(8.0)	(6.4)	(12.5)	(12.2)	(9.9)	(8.3)	(3.7)	(8.1)	
Perth.....	No.	55,057	6,038	5,773	4,528	3,723	3,142	7,078	6,871	5,995	5,282	2,187	4,440	31.1
	%	(100.0)	(11.0)	(10.5)	(8.2)	(6.7)	(5.7)	(12.8)	(12.5)	(10.9)	(9.6)	(4.0)	(8.1)	
Waterloo.....	No.	148,774	17,990	15,471	11,335	9,308	10,265	23,948	20,050	16,184	11,866	4,432	7,925	29.2
	%	(100.0)	(12.1)	(10.4)	(7.6)	(6.2)	(6.9)	(16.1)	(13.5)	(10.9)	(8.0)	(3.0)	(5.3)	
Wellington.....	No.	75,691	8,808	7,961	6,139	5,368	4,881	10,560	9,521	8,116	6,512	2,607	5,218	29.4
	%	(100.0)	(11.6)	(10.5)	(8.1)	(7.1)	(6.5)	(14.0)	(12.6)	(10.7)	(8.6)	(3.4)	(6.9)	
TOTAL, UPPER GRAND RIVER.....	No.	331,250	38,847	34,820	26,370	22,528	21,584	48,066	42,730	35,438	27,950	11,138	21,779	29.5
	%	(100.0)	(11.7)	(10.5)	(8.0)	(6.8)	(6.5)	(14.5)	(12.9)	(10.7)	(8.4)	(3.4)	(6.6)	
GEORGIAN BAY														
A—Blue Water														
Bruce.....	No.	42,070	4,622	4,624	3,905	3,008	2,250	4,411	4,975	4,749	4,005	1,744	3,777	31.0
	%	(100.0)	(11.0)	(11.0)	(9.3)	(7.1)	(5.3)	(10.5)	(11.8)	(11.3)	(9.5)	(4.2)	(9.0)	
Dufferin.....	No.	15,569	1,727	1,649	1,465	1,030	742	1,773	2,027	1,808	1,440	580	1,328	31.6
	%	(100.0)	(11.1)	(10.6)	(9.4)	(6.6)	(4.8)	(11.4)	(13.0)	(11.6)	(9.3)	(3.7)	(8.5)	
Grey.....	No.	60,971	6,473	6,510	5,252	4,253	3,359	7,164	7,674	7,046	5,857	2,427	4,956	31.5
	%	(100.0)	(10.6)	(10.7)	(8.6)	(7.0)	(5.5)	(11.7)	(12.6)	(11.6)	(9.6)	(4.0)	(8.1)	
Simcoe.....	No.	127,016	15,342	14,517	11,360	9,353	8,370	17,745	16,230	12,422	9,512	4,130	8,035	27.6
	%	(100.0)	(12.1)	(11.4)	(8.9)	(7.4)	(6.6)	(14.0)	(12.8)	(9.8)	(7.5)	(3.2)	(6.3)	
Sub-total.....	No.	245,626	28,164	27,300	21,982	17,644	14,721	31,093	30,906	26,025	20,814	8,881	18,096	29.2
	%	(100.0)	(11.5)	(11.1)	(8.9)	(7.2)	(6.0)	(12.7)	(12.6)	(10.6)	(8.5)	(3.6)	(7.3)	
B—Highlands														
Muskoka.....	No.	25,134	2,752	2,723	2,238	1,698	1,317	3,074	3,187	2,856	2,476	1,001	1,812	31.0
	%	(100.0)	(10.9)	(10.8)	(8.9)	(6.8)	(5.2)	(12.2)	(12.7)	(11.4)	(9.9)	(4.0)	(7.2)	
Parry Sound.....	No.	28,095	3,352	3,305	2,933	2,256	1,514	3,175	3,422	2,985	2,417	1,063	1,673	27.2
	%	(100.0)	(11.9)	(11.8)	(10.4)	(8.0)	(5.4)	(11.3)	(12.2)	(10.6)	(8.6)	(3.8)	(6.0)	
Sub-total.....	No.	53,229	6,104	6,028	5,171	3,954	2,831	6,249	6,609	5,841	4,893	2,064	3,485	29.0
	%	(100.0)	(11.5)	(11.3)	(9.7)	(7.4)	(5.3)	(11.7)	(12.4)	(11.0)	(9.2)	(3.9)	(6.6)	
TOTAL, GEORGIAN BAY.....	No.	298,855	34,268	33,328	27,153	21,598	17,552	37,342	37,515	31,866	25,707	10,945	21,581	29.2
	%	(100.0)	(11.5)	(11.1)	(9.1)	(7.2)	(5.9)	(12.5)	(12.5)	(10.7)	(8.6)	(3.7)	(7.2)	

POPULATION BY AGE GROUPS, ONTARIO, JUNE 1, 1956—Continued

COUNTIES AND REGIONS

	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70+	Median Age
NORTHEASTERN ONTARIO													
A—Clay Belt													
Cochrane.....No.	86,768	11,792	10,867	8,856	7,328	6,089	12,854	10,316	8,820	5,892	1,779	2,175	23.7
%	(100.0)	(13.6)	(12.5)	(10.2)	(8.4)	(7.0)	(14.8)	(11.9)	(10.2)	(6.8)	(2.1)	(2.5)	
Nipissing.....No.	60,452	8,411	7,506	6,100	5,142	4,676	8,592	7,248	5,146	3,930	1,514	2,187	23.3
%	(100.0)	(13.9)	(12.4)	(10.1)	(8.5)	(7.7)	(14.2)	(12.1)	(8.5)	(6.5)	(2.5)	(3.6)	
Timiskaming.....No.	50,264	6,366	6,254	5,118	4,310	3,319	6,340	6,575	5,130	3,451	1,298	2,103	24.6
%	(100.0)	(12.6)	(12.4)	(10.2)	(8.6)	(6.6)	(12.6)	(13.1)	(10.2)	(6.9)	(2.6)	(4.2)	
Sub-total.....No.	197,484	26,569	24,627	20,074	16,780	14,084	27,786	24,139	19,096	13,273	4,591	6,465	23.8
%	(100.0)	(13.5)	(12.5)	(10.2)	(8.5)	(7.1)	(14.0)	(12.2)	(9.7)	(6.7)	(2.3)	(3.3)	
B—Nickel Range													
Manitoulin.....No.	11,060	1,336	1,349	1,207	1,012	663	1,187	1,182	1,208	898	347	671	24.7
%	(100.0)	(12.1)	(12.2)	(10.9)	(9.2)	(6.0)	(10.7)	(10.7)	(10.9)	(8.1)	(3.1)	(6.1)	
Sudbury.....No.	141,975	21,553	17,764	13,381	10,743	10,843	24,485	19,165	12,097	6,943	2,152	2,849	23.5
%	(100.0)	(15.2)	(12.5)	(9.4)	(7.6)	(7.6)	(17.3)	(13.5)	(8.5)	(4.9)	(1.5)	(2.0)	
Sub-total.....No.	153,035	22,889	19,113	14,588	11,755	11,506	25,672	20,347	13,305	7,841	2,499	3,520	23.6
%	(100.0)	(15.0)	(12.5)	(9.5)	(7.7)	(7.5)	(16.8)	(13.3)	(8.7)	(5.1)	(1.6)	(2.3)	
C—Sault													
Algoma.....No.	82,059	10,661	9,186	6,984	6,172	6,570	13,385	11,097	7,911	5,169	1,930	2,994	26.1
%	(100.0)	(13.0)	(11.2)	(8.5)	(7.5)	(8.0)	(16.3)	(13.5)	(9.6)	(6.3)	(2.4)	(3.7)	
Sub-total.....No.	82,059	10,661	9,186	6,984	6,172	6,570	13,385	11,097	7,911	5,169	1,930	2,994	26.1
%	(100.0)	(13.0)	(11.2)	(8.5)	(7.5)	(8.0)	(16.3)	(13.5)	(9.6)	(6.3)	(2.4)	(3.7)	
TOTAL, NORTHEASTERN ONTARIO.....No.	432,578	60,119	52,926	41,646	34,707	32,160	66,843	55,583	40,312	26,283	9,020	12,979	24.2
%	(100.0)	(13.9)	(12.2)	(9.6)	(8.0)	(7.4)	(15.5)	(12.9)	(9.3)	(6.1)	(2.1)	(3.0)	
LAKEHEAD-NORTHWESTERN ONTARIO													
Kenora.....No.	47,156	6,324	5,521	4,105	3,432	3,641	7,418	6,225	4,774	3,033	1,072	1,611	25.7
%	(100.0)	(13.4)	(11.7)	(8.7)	(7.3)	(7.7)	(15.7)	(13.2)	(10.1)	(6.5)	(2.3)	(3.4)	
Rainy River.....No.	25,483	3,497	3,178	2,346	1,970	1,725	3,566	3,327	2,331	1,646	723	1,174	25.1
%	(100.0)	(13.7)	(12.5)	(9.2)	(7.7)	(6.8)	(14.0)	(13.1)	(9.1)	(6.5)	(2.8)	(4.6)	
Thunder Bay.....No.	122,890	14,911	13,604	9,744	7,860	8,070	20,012	17,984	13,336	9,155	3,497	4,717	28.6
%	(100.0)	(12.1)	(11.1)	(7.9)	(6.4)	(6.6)	(16.3)	(14.6)	(10.9)	(7.4)	(2.9)	(3.8)	
TOTAL, LAKEHEAD-NORTHWESTERN ONTARIO.....No.	195,529	24,732	22,303	16,195	13,262	13,436	30,996	27,536	20,441	13,834	5,292	7,502	27.5
%	(100.0)	(12.6)	(11.4)	(8.3)	(6.8)	(6.9)	(15.9)	(14.1)	(10.4)	(7.1)	(2.7)	(3.8)	
GRAND TOTAL, ONTARIO.....No.	5,404,933	628,825	563,678	425,922	346,850	365,160	856,108	751,882	581,506	430,627	167,371	287,004	29.3
%	(100.0)	(11.6)	(10.4)	(7.9)	(6.4)	(6.8)	(15.8)	(13.9)	(10.8)	(8.0)	(3.1)	(5.3)	

Source: Dominion Bureau of Statistics, *Census of Canada*.

POPULATION BY SEX, ONTARIO, JUNE 1, 1956

COUNTIES AND REGIONS

	Total	Male		Female		Males per 100 Females
		No.	%	No.	%	
EASTERN ONTARIO						
A—Ottawa Valley						
Carleton.....	282,630	136,780	48.4	145,850	51.6	94
Lanark.....	38,025	19,091	50.2	18,934	49.8	101
Prescott.....	26,291	13,520	51.4	12,771	48.6	106
Renfrew.....	78,245	41,025	52.4	37,220	47.6	110
Russell.....	18,994	9,712	51.1	9,282	48.9	105
Sub-total.....	444,185	220,128	49.6	224,057	50.4	98
B—Upper St. Lawrence						
Dundas.....	16,978	8,463	49.8	8,515	50.2	99
Frontenac.....	76,534	38,966	50.9	37,568	49.1	104
Glengarry.....	18,693	9,658	51.7	9,035	48.3	107
Grenville.....	20,563	10,337	50.3	10,226	49.7	101
Leeds.....	43,077	21,464	49.8	21,613	50.2	99
Stormont.....	56,452	28,563	50.6	27,889	49.4	102
Sub-total.....	232,297	117,451	50.6	114,846	49.4	102
TOTAL, EASTERN ONTARIO.....	676,482	337,579	49.9	338,903	50.1	100

COUNTIES AND REGIONS

	Total	Male		Female		Males per 100 Females
		No.	%	No.	%	
LAKE ONTARIO						
Durham	35,827	18,188	50.8	17,639	49.2	103
Haliburton...	8,012	4,178	52.1	3,834	47.9	109
Hastings	83,745	42,380	50.6	41,365	49.4	102
Lennox & Addington	21,611	11,054	51.1	10,557	48.9	105
Northumberland...	38,018	19,040	50.1	18,978	49.9	100
Peterborough	67,981	33,747	49.6	34,234	50.4	99
Prince Edward	21,145	10,749	50.8	10,405	49.2	103
Victoria	28,248	14,057	49.8	14,191	50.2	99
TOTAL, LAKE ONTARIO	304,587	153,384	50.4	151,203	49.6	101
METROPOLITAN						
Halton...	68,297	34,632	50.7	33,665	49.3	103
Ontario...	108,440	55,217	50.9	53,223	49.1	104
Peel	83,108	42,839	51.5	40,269	48.5	106
York	1,440,601	711,627	49.4	728,974	50.6	98
TOTAL, METROPOLITAN	1,700,446	844,315	49.7	856,131	50.3	99
NIAGARA						
A—Burlington						
Brant	77,992	38,602	49.5	39,390	50.5	98
Wentworth	316,238	156,361	49.4	159,877	50.6	98
Sub-total	394,230	194,963	49.5	199,267	50.5	98
B—Niagara						
Haldimand	26,067	13,128	50.4	12,939	49.6	101
Lincoln	111,740	55,865	50.0	55,875	50.0	100
Welland	149,606	75,486	50.5	74,120	49.5	102
Sub-total	287,413	144,479	50.3	142,934	49.7	101
TOTAL, NIAGARA	681,643	339,442	49.8	342,201	50.2	99
LAKE ERIE						
Elgin	59,114	29,544	50.0	29,570	50.0	100
Middlesex	190,897	93,887	49.2	97,010	50.8	97
Norfolk	46,122	23,199	50.3	22,923	49.7	101
Oxford	65,228	32,870	50.4	32,358	49.6	102
TOTAL, LAKE ERIE	361,361	179,500	49.7	181,861	50.3	99
LAKE ST. CLAIR						
A—Border						
Essex	246,901	124,762	50.5	122,139	49.5	102
Kent	85,362	42,963	50.3	42,399	49.7	101
Sub-total	332,263	167,725	50.5	164,538	49.5	102
B—Lambton						
Lambton	89,939	45,442	50.5	44,497	49.5	102
Sub-total	89,939	45,442	50.5	44,497	49.5	102
TOTAL, LAKE ST. CLAIR	422,202	213,167	50.5	209,035	49.5	102
UPPER GRAND RIVER						
Huron	51,728	26,156	50.6	25,572	49.4	102
Perth	55,057	27,417	49.8	27,640	50.2	99
Waterloo	148,774	73,526	49.4	75,248	50.6	98
Wellington	75,691	38,125	50.4	37,566	49.6	101
TOTAL, UPPER GRAND RIVER	331,250	165,224	49.9	166,026	50.1	100
GEORGIAN BAY						
A—Blue Water						
Bruce	42,070	21,479	51.1	20,591	48.9	104
Dufferin	15,569	7,941	51.0	7,628	49.0	104
Grey....	60,971	30,729	50.4	30,242	49.6	102
Simcoe	127,016	65,581	51.6	61,435	48.4	107
Sub-total	245,626	125,730	51.2	119,896	48.8	105
B—Highlands						
Muskoka	25,134	12,731	50.7	12,403	49.3	103
Parry Sound	28,095	14,600	52.0	13,495	48.0	108
Sub-total	53,229	27,331	51.3	25,898	48.7	106
TOTAL, GEORGIAN BAY	298,855	153,061	51.2	145,794	48.8	105

COUNTIES AND REGIONS

	Total	Male		Female		Males per 100 Females
		No.	%	No.	%	
NORTHEASTERN ONTARIO						
A—Clay Belt						
Cochrane	86,768	46,463	53.5	40,305	46.5	115
Nipissing	60,452	31,163	51.5	29,289	48.5	106
Timiskaming	50,264	26,213	52.2	24,051	47.8	109
Sub-total	197,484	103,839	52.6	93,645	47.4	111
B—Nickel Range						
Manitoulin	11,060	5,725	51.8	5,335	48.2	107
Sudbury	141,975	75,240	53.0	66,735	47.0	113
Sub-total	153,035	80,965	52.9	72,070	47.1	112
C—Sault						
Algoma	82,059	45,251	55.1	36,808	44.9	123
Sub-total	82,059	45,251	55.1	36,808	44.9	123
TOTAL, NORTHEASTERN ONTARIO ..	432,578	230,055	53.2	202,523	46.8	114
LAKEHEAD-NORTHWESTERN ONTARIO						
Kenora	47,156	25,842	54.8	21,314	45.2	121
Rainy River	25,483	13,492	52.9	11,991	47.1	113
Thunder Bay	112,890	66,458	59.1	56,432	45.9	118
TOTAL, LAKEHEAD-NORTHWESTERN						
ONTARIO	195,529	105,792	54.1	89,737	45.9	118
GRAND TOTAL, ONTARIO	5,404,933	2,721,519	50.4	2,683,414	49.6	101

Source: Dominion Bureau of Statistics, *Census of Canada*.

RURAL-URBAN DISTRIBUTION OF POPULATION, ONTARIO, 1951 AND 1956

COUNTIES AND REGIONS

	1951			1956			Per Cent Change 1956/1951	
	Total	Rural	Urban	Total	Rural	Urban	Rural	Urban
	No.	No.	No.	No.	No.	No.	%	%
EASTERN ONTARIO								
A—Ottawa Valley								
Carleton	242,247	14,591	227,656	282,630	16,340	266,290	12.0	17.0
% (100.0)		(6.0)	(94.0)	(100.0)	(5.8)	(94.2)		
Lanark	35,601	14,729	20,872	38,025	16,163	21,862	9.7	4.7
% (100.0)		(41.4)	(58.6)	(100.0)	(42.5)	(57.5)		
Prescott	25,576	16,902	8,674	26,291	14,391	11,900	-14.9	37.2
% (100.0)		(66.1)	(33.9)	(100.0)	(54.7)	(45.3)		
Renfrew	66,717	37,685	29,032	78,245	41,411	36,834	9.9	26.9
% (100.0)		(56.5)	(43.5)	(100.0)	(52.9)	(47.1)		
Russell	17,666	14,160	3,506	18,994	14,996	3,998	5.9	14.0
% (100.0)		(80.2)	(19.8)	(100.0)	(79.0)	(21.0)		
Sub-total	387,807	98,067	289,740	444,185	103,301	340,884	5.3	17.7
% (100.0)		(25.3)	(74.7)	(100.0)	(23.3)	(76.7)		
B—Upper St. Lawrence								
Dundas	15,818	10,579	5,239	16,978	11,262	5,716	6.5	9.1
% (100.0)		(66.9)	(33.1)	(100.0)	(66.3)	(33.7)		
Frontenac	66,099	16,772	49,327	76,534	18,244	58,290	8.8	18.2
% (100.0)		(25.4)	(74.6)	(100.0)	(23.8)	(76.2)		
Glengarry	17,702	15,498	2,204	18,693	16,206	2,487	4.6	12.8
% (100.0)		(87.5)	(12.5)	(100.0)	(86.7)	(13.3)		
Grenville	17,045	10,257	6,788	20,563	11,919	8,644	16.2	27.3
% (100.0)		(60.2)	(39.8)	(100.0)	(58.0)	(42.0)		
Leeds	38,831	21,958	16,873	43,077	24,211	18,866	10.3	11.8
% (100.0)		(56.5)	(43.5)	(100.0)	(56.2)	(43.8)		
Stormont	48,458	20,764	27,694	56,452	12,428	44,024	-35.3	55.4
% (100.0)		(42.8)	(57.2)	(100.0)	(23.8)	(76.2)		
Sub-total	203,953	95,828	108,125	232,297	95,270	137,027	-0.6	26.7
% (100.0)		(47.0)	(53.0)	(100.0)	(41.0)	(59.0)		
TOTAL, EASTERN ONTARIO	591,760	193,895	397,865	676,482	198,571	477,911	2.4	20.1
% (100.0)		(32.8)	(67.2)	(100.0)	(29.4)	(70.6)		

RURAL-URBAN DISTRIBUTION OF POPULATION, ONTARIO, 1951 AND 1956—Continued

COUNTIES AND REGIONS									
		1951			1956			Per Cent Change 1956/1951	
		Total	Rural	Urban	Total	Rural	Urban	Rural	Urban
LAKE ONTARIO									
Durham	No.	30,115	17,084	13,031	35,827	19,040	16,787	11.4	28.8
	%	(100.0)	(56.7)	(43.3)	(100.0)	(53.1)	(46.9)		
Haliburton	No.	7,670	7,670	—	8,012	8,012	—	4.5	0.0
	%	(100.0)	(100.0)	—	(100.0)	(100.0)	—		
Hastings	No.	74,298	35,426	38,872	83,745	39,169	44,126	11.8	13.5
	%	(100.0)	(47.7)	(52.3)	(100.0)	(47.3)	(52.7)		
Lennox & Addington	No.	19,544	15,647	3,897	21,611	17,338	4,273	10.8	9.6
	%	(100.0)	(80.1)	(19.9)	(100.0)	(80.2)	(19.8)		
Northumberland	No.	33,482	19,702	13,780	38,018	21,772	16,246	10.5	17.9
	%	(100.0)	(58.8)	(41.2)	(100.0)	(57.3)	(42.7)		
Peterborough	No.	60,789	16,756	44,033	67,981	17,973	50,008	7.3	13.6
	%	(100.0)	(27.6)	(72.4)	(100.0)	(26.4)	(73.6)		
Prince Edward	No.	18,559	14,272	4,287	21,145	15,070	6,075	5.6	41.7
	%	(100.0)	(76.9)	(23.1)	(100.0)	(71.3)	(28.7)		
Victoria	No.	27,127	15,013	12,114	28,248	15,759	12,489	5.0	3.1
	%	(100.0)	(55.3)	(44.7)	(100.0)	(55.8)	(44.2)		
TOTAL, LAKE ONTARIO	No.	271,584	141,570	130,014	304,587	154,583	150,004	9.2	15.4
	%	(100.0)	(52.1)	(47.9)	(100.0)	(50.8)	(49.2)		
METROPOLITAN									
Halton	No.	44,003	12,972	31,031	68,297	20,420	47,877	57.4	54.3
	%	(100.0)	(29.5)	(70.5)	(100.0)	(29.9)	(70.1)		
Ontario	No.	87,088	27,837	59,251	108,440	33,153	75,287	19.1	27.1
	%	(100.0)	(32.0)	(68.0)	(100.0)	(30.6)	(69.4)		
Peel	No.	55,673	28,935	26,738	83,108	23,507	59,601	-18.8	122.9
	%	(100.0)	(52.0)	(48.0)	(100.0)	(28.3)	(71.7)		
York	No.	1,176,622	42,106	1,134,516	1,440,601	48,092	1,392,509	14.2	22.7
	%	(100.0)	(3.6)	(96.4)	(100.0)	(3.3)	(96.7)		
TOTAL, METROPOLITAN	No.	1,363,386	111,850	1,251,536	1,700,446	125,172	1,575,274	11.9	25.9
	%	(100.0)	(8.2)	(91.8)	(100.0)	(7.4)	(92.6)		
NIAGARA									
A—Burlington									
Brant	No.	72,857	15,377	57,480	77,992	16,399	61,593	6.6	7.2
	%	(100.0)	(21.1)	(78.9)	(100.0)	(21.0)	(79.0)		
Wentworth	No.	266,083	7,966	258,117	316,238	10,463	305,775	31.3	18.5
	%	(100.0)	(3.0)	(97.0)	(100.0)	(3.3)	(96.7)		
Sub-total	No.	338,940	23,343	315,597	394,230	26,862	367,368	15.1	16.4
	%	(100.0)	(6.9)	(93.1)	(100.0)	(6.8)	(93.2)		
B—Niagara									
Haldimand	No.	24,138	16,233	7,905	26,067	17,249	8,818	6.3	11.5
	%	(100.0)	(67.3)	(32.7)	(100.0)	(66.2)	(33.8)		
Lincoln	No.	89,366	22,814	66,552	111,740	27,464	84,276	20.4	26.6
	%	(100.0)	(25.5)	(74.5)	(100.0)	(24.6)	(75.4)		
Welland	No.	123,233	24,708	98,525	149,606	31,237	118,369	26.4	20.1
	%	(100.0)	(20.0)	(80.0)	(100.0)	(20.9)	(79.1)		
Sub-total	No.	236,737	63,755	172,982	287,413	75,950	211,463	19.1	22.2
	%	(100.0)	(26.9)	(73.1)	(100.0)	(26.4)	(73.6)		
TOTAL, NIAGARA	No.	575,677	87,098	488,579	681,643	102,812	578,831	18.0	18.5
	%	(100.0)	(15.1)	(84.9)	(100.0)	(15.1)	(84.9)		
LAKE ERIE									
Elgin	No.	55,518	31,340	24,178	59,114	31,089	28,025	-0.8	15.9
	%	(100.0)	(56.5)	(43.5)	(100.0)	(52.6)	(47.4)		
Middlesex	No.	162,139	29,454	132,685	190,897	30,117	160,780	2.3	21.2
	%	(100.0)	(18.2)	(81.8)	(100.0)	(15.8)	(84.2)		
Norfolk	No.	42,708	28,737	13,971	46,122	30,344	15,778	5.6	12.9
	%	(100.0)	(67.3)	(32.7)	(100.0)	(65.8)	(34.2)		
Oxford	No.	58,818	29,509	29,309	65,228	31,757	33,471	7.6	14.2
	%	(100.0)	(50.2)	(49.8)	(100.0)	(48.7)	(51.3)		
TOTAL, LAKE ERIE	No.	319,183	119,040	200,143	361,361	123,307	238,054	3.6	18.9
	%	(100.0)	(37.3)	(62.7)	(100.0)	(34.1)	(65.9)		
LAKE ST. CLAIR									
A—Border									
Essex	No.	217,150	33,366	183,784	246,901	37,703	209,198	13.0	13.8
	%	(100.0)	(15.4)	(84.6)	(100.0)	(15.3)	(84.7)		
Kent	No.	79,128	40,899	38,229	85,362	43,694	41,668	6.8	9.0
	%	(100.0)	(51.7)	(48.3)	(100.0)	(51.2)	(48.8)		
Sub-total	No.	296,278	74,265	222,013	332,263	81,397	250,866	9.6	13.0
	%	(100.0)	(25.1)	(74.9)	(100.0)	(24.5)	(75.5)		
B—Lambton									
Lambton	No.	74,960	27,561	47,399	89,939	30,405	59,534	10.3	25.6
	%	(100.0)	(36.8)	(63.2)	(100.0)	(33.8)	(66.2)		
Sub-total	No.	74,960	27,561	47,399	89,939	30,405	59,534	10.3	25.6
	%	(100.0)	(36.8)	(63.2)	(100.0)	(33.8)	(66.2)		
TOTAL, LAKE ST. CLAIR	No.	371,238	101,826	269,412	422,202	111,802	310,400	9.8	15.2
	%	(100.0)	(27.4)	(72.6)	(100.0)	(26.5)	(73.5)		

COUNTIES AND REGIONS

		1951			1956			Per Cent Change 1956/1951	
		Total	Rural	Urban	Total	Rural	Urban	Rural	Urban
UPPER GRAND RIVER									
Huron	No.	49,280	34,492	14,788	51,728	35,397	16,331	2.6	10.4
	%	(100.0)	(70.0)	(30.0)	(100.0)	(68.4)	(31.6)		
Perth	No.	52,584	22,679	29,905	55,057	23,371	31,686	3.1	6.0
	%	(100.0)	(43.1)	(56.9)	(100.0)	(42.4)	(57.6)		
Waterloo	No.	126,123	26,962	99,161	148,774	27,032	121,742	0.3	22.8
	%	(100.0)	(21.4)	(78.6)	(100.0)	(18.2)	(81.8)		
Wellington	No.	66,930	25,362	41,568	75,691	26,962	48,729	6.3	17.2
	%	(100.0)	(37.9)	(62.1)	(100.0)	(35.6)	(64.4)		
TOTAL, UPPER GRAND RIVER	No.	294,917	109,495	185,422	331,250	112,762	218,488	3.0	17.8
	%	(100.0)	(37.1)	(62.9)	(100.0)	(34.0)	(66.0)		
GEORGIAN BAY									
A—Blue Water									
Bruce	No.	41,311	28,490	12,821	42,070	28,885	13,185	1.4	2.8
	%	(100.0)	(69.0)	(31.0)	(100.0)	(68.7)	(31.3)		
Dufferin	No.	14,566	10,133	4,433	15,569	10,437	5,132	3.0	15.8
	%	(100.0)	(69.6)	(30.4)	(100.0)	(67.0)	(33.0)		
Grey	No.	58,960	32,980	25,980	60,971	33,305	27,666	1.0	6.5
	%	(100.0)	(55.9)	(44.1)	(100.0)	(54.6)	(45.4)		
Simcoe	No.	106,482	57,540	48,942	127,016	66,682	60,334	15.9	23.3
	%	(100.0)	(54.0)	(46.0)	(100.0)	(52.5)	(47.5)		
Sub-total	No.	221,319	129,143	92,176	245,626	139,309	106,317	7.9	15.3
	%	(100.0)	(58.4)	(41.6)	(100.0)	(56.7)	(43.3)		
B Highlands									
Muskoka	No.	24,713	15,738	8,975	25,134	16,220	8,914	3.1	-0.7
	%	(100.0)	(63.7)	(36.3)	(100.0)	(64.5)	(35.5)		
Parry Sound	No.	27,371	22,188	5,183	28,095	21,553	6,542	-2.9	26.2
	%	(100.0)	(81.1)	(18.9)	(100.0)	(76.7)	(23.3)		
Sub-total	No.	52,084	37,926	14,158	53,229	37,773	15,456	-0.4	9.2
	%	(100.0)	(72.8)	(27.2)	(100.0)	(71.0)	(29.0)		
TOTAL, GEORGIAN BAY	No.	273,403	167,069	106,334	298,855	177,082	121,773	6.0	14.5
	%	(100.0)	(61.1)	(38.9)	(100.0)	(59.3)	(40.7)		
NORTHEASTERN ONTARIO									
A—Clay Belt									
Cochrane	No.	83,850	29,609	54,241	86,768	29,458	57,310	-0.5	5.7
	%	(100.0)	(35.3)	(64.7)	(100.0)	(34.0)	(66.0)		
Nipissing	No.	50,517	23,120	27,397	60,452	24,332	36,120	5.2	31.8
	%	(100.0)	(45.8)	(54.2)	(100.0)	(40.3)	(59.7)		
Timiskaming	No.	50,016	20,414	29,602	50,264	20,128	30,136	-1.4	1.8
	%	(100.0)	(40.8)	(59.2)	(100.0)	(40.0)	(60.0)		
Sub-total	No.	184,383	73,143	111,240	197,484	73,918	123,566	1.1	11.1
	%	(100.0)	(39.7)	(60.3)	(100.0)	(37.4)	(62.6)		
B—Nickel Range									
Manitoulin	No.	11,214	9,817	1,397	11,060	9,546	1,514	-2.8	8.4
	%	(100.0)	(87.5)	(12.5)	(100.0)	(86.3)	(13.7)		
Sudbury	No.	109,590	26,598	83,082	141,975	29,160	112,815	10.0	35.8
	%	(100.0)	(24.2)	(75.8)	(100.0)	(20.5)	(79.5)		
Sub-total	No.	120,804	36,325	84,479	153,035	38,706	114,329	6.6	35.3
	%	(100.0)	(30.1)	(69.9)	(100.0)	(25.3)	(74.7)		
C—Sault									
Algoma	No.	64,496	18,710	45,786	82,059	21,695	60,364	16.0	31.8
	%	(100.0)	(29.0)	(71.0)	(100.0)	(26.4)	(73.6)		
Sub-total	No.	64,496	18,710	45,786	82,059	21,695	60,364	16.0	31.8
	%	(100.0)	(29.0)	(71.0)	(100.0)	(26.4)	(73.6)		
TOTAL, NORTHEASTERN ONTARIO	No.	369,683	128,178	241,505	432,578	134,319	298,259	4.8	23.5
	%	(100.0)	(34.7)	(65.3)	(100.0)	(31.1)	(68.9)		
LAKEHEAD-NORTHWESTERN ONTARIO									
Kenora	No.	39,212	22,819	16,393	47,156	26,330	20,826	15.4	27.0
	%	(100.0)	(58.2)	(41.8)	(100.0)	(55.8)	(44.2)		
Rainy River	No.	22,132	12,746	9,386	25,483	9,269	16,214	-27.3	72.7
	%	(100.0)	(57.6)	(42.4)	(100.0)	(36.4)	(63.6)		
Thunder Bay	No.	105,357	26,131	79,226	122,890	26,005	96,885	-0.5	22.3
	%	(100.0)	(24.8)	(75.2)	(100.0)	(21.2)	(78.8)		
TOTAL, LAKEHEAD-NORTHWESTERN ONTARIO	No.	166,711	61,696	105,015	195,529	61,604	133,925	-0.1	27.5
	%	(100.0)	(37.0)	(63.0)	(100.0)	(31.5)	(68.5)		
GRAND TOTAL, ONTARIO	No.	4,597,542	1,221,717	3,375,825	5,404,933	1,302,014	4,102,919	6.6	21.5
	%	(100.0)	(26.6)	(73.4)	(100.0)	(24.1)	(75.9)		

Source: Dominion Bureau of Statistics, *Census of Canada*.

NUMBER OF FAMILIES, ONTARIO, JUNE 1, 1956

COUNTIES AND REGIONS						
	Number of Families	Persons in Families	Average Number of Persons per Family	Number of Families	Persons in Families	Average Number of Persons per Family
EASTERN ONTARIO						
A—Ottawa Valley						
Carleton.....	66,996	239,765	3.6			
Lanark.....	8,959	31,848	3.6			
Prescott.....	5,345	23,938	4.3			
Renfrew.....	17,537	68,913	3.9			
Russell.....	3,907	17,630	4.4			
Sub-total.....	102,834	382,094	3.7			
B—Upper St. Lawrence						
Dundas.....	4,119	15,046	3.7			
Frontenac.....	17,597	63,263	3.6			
Glengarry.....	3,977	16,492	4.1			
Grenville.....	5,398	18,149	3.6			
Leeds.....	13,295	36,349	3.5			
Stormont.....	12,965	50,416	3.9			
Sub-total.....	58,461	199,715	3.7			
TOTAL, EASTERN ONTARIO.....	161,295	581,809	3.7			
LAKE ONTARIO						
Durham.....	8,880	31,910	3.6			
Haliburton.....	1,974	7,078	3.6			
Hastings.....	29,244	74,383	3.7			
Lennox & Addington.....	5,341	19,359	3.6			
Northumberland.....	9,283	33,224	3.6			
Peterborough.....	16,621	60,272	3.6			
Prince Edward.....	5,229	18,586	3.6			
Victoria.....	7,693	24,734	3.5			
TOTAL, LAKE ONTARIO.....	74,654	269,546	3.6			
METROPOLITAN						
Halton.....	17,553	62,260	3.5			
Ontario.....	27,163	95,580	3.5			
Peel.....	21,219	75,460	3.6			
York.....	331,653	1,224,414	3.2			
TOTAL, METROPOLITAN.....	447,588	1,457,714	3.3			
NIAGARA						
A—Burlington						
Brant.....	6,241	69,252	3.5			
Wentworth.....	5,398	277,166	3.4			
Sub-total.....	11,639	346,418	3.4			
B—Niagara						
Haldimand.....	7,736	23,372	3.6			
Lincoln.....	27,701	130,610	3.5			
Welland.....	13,013	735,313	3.6			
Sub-total.....	48,450	889,295	3.6			
TOTAL, NIAGARA.....	60,089	1,235,713	3.5			
LAKE ERIE						
Elgin.....	17,332	50,116	3.5			
Middlesex.....	62,141	151,891	3.4			
Norfolk.....	4,305	41,590	3.6			
Oxford.....	6,306	36,839	3.5			
TOTAL, LAKE ERIE.....	86,084	310,436	3.5			
LAKE ST. CLAIR						
A—Border						
Essex.....	62,314	221,718	3.6			
Kent.....	21,279	77,104	3.6			
Sub-total.....	83,593	298,822	3.6			
B—Lambton						
Lambton.....	22,281	80,918	3.6			
Sub-total.....	22,281	80,918	3.6			
TOTAL, LAKE ST. CLAIR.....	105,874	379,740	3.6			
UPPER GRAND RIVER						
Huron.....	12,275	44,806	3.7			
Perth.....	13,813	48,659	3.5			
Waterloo.....	37,906	131,692	3.5			
Wellington.....	18,542	65,984	3.6			
TOTAL, UPPER GRAND RIVER.....	82,536	291,141	3.5			
GEORGIAN BAY						
A—Blue Water						
Bruce.....	10,105	37,225	3.7			
Dufferin.....	3,883	13,823	3.6			
Grey.....	15,415	54,074	3.5			
Simcoe.....	29,567	107,799	3.6			
Sub-total.....	58,970	212,921	3.6			
B—Highlands						
Muskoka.....	6,215	21,882	3.5			
Parry Sound.....	6,487	24,959	3.8			
Sub-total.....	12,702	46,841	3.7			
TOTAL, GEORGIAN BAY.....	71,672	259,762	3.6			
NORTHEASTERN ONTARIO						
A—Clay Belt						
Cochrane.....	18,745	77,293	4.1			
Nipissing.....	13,193	54,123	4.1			
Timiskaming.....	11,317	44,554	3.9			
Sub-total.....	43,255	175,970	4.1			
B—Nickel Range						
Manitoulin.....	2,466	9,956	4.0			
Sudbury.....	31,186	126,408	4.1			
Sub-total.....	33,652	136,364	4.1			
C—Sault						
Algoma.....	17,961	68,941	3.8			
Sub-total.....	17,961	68,941	3.8			
TOTAL, NORTHEASTERN ONTARIO.....	94,868	381,275	4.0			
LAKEHEAD-NORTHWESTERN ONTARIO						
Kenora.....	10,273	39,391	3.8			
Rainy River.....	5,827	22,560	3.9			
Thunder Bay.....	28,375	103,184	3.6			
TOTAL, LAKEHEAD-NORTHWESTERN ONTARIO.....	44,475	165,135	3.7			
GRAND TOTAL, ONTARIO.....	1,342,572	4,702,271	3.5			

Source: Dominion Bureau of Statistics

**CRUDE BIRTH AND DEATH RATES, ESTIMATED AGE-SPECIFIC FERTILITY AND DEATH RATES, 1956
AND NET MIGRATION RATES, 1951 TO 1956, ONTARIO**

REGIONS

	EASTERN ONTARIO				NIAGARA			LAKE ST. CLAIR		UPPER GRAND RIVER	GEORGIAN BAY		NORTHEASTERN ONTARIO			LAKEHEAD- NORTH- WESTERN ONTARIO	TOTAL ONTARIO
	Ottawa Valley	Upper St. Lawrence	LAKE ONTARIO	METRO- POLITAN	Burlington	Niagara	LAKE ERIE	Border	Lambton		Blue Water	Highlands	Clay Belt	Nickel Range	Sault		
Age-Specific Fertility Rates (Births per 1,000 Females)																	
15-19 years	66.9	69.1	69.8	57.3	61.4	63.4	66.2	68.7	72.4	65.1	71.2	78.2	81.7	82.4	81.0	75.1	66.5
20-24 years	229.2	238.4	239.3	196.3	210.3	217.1	227.0	235.3	248.0	223.0	244.1	268.0	279.8	282.5	277.6	257.2	225.7
25-29 years	210.7	219.1	220.0	180.4	193.3	199.6	208.7	216.3	228.0	205.0	224.4	246.4	257.2	259.7	255.2	236.5	205.7
30-34 years	144.3	150.1	150.7	123.6	132.4	136.7	142.9	148.2	156.2	140.4	153.7	168.8	176.2	177.9	174.8	162.0	135.5
35-39 years	76.9	80.0	80.3	65.9	70.6	72.9	76.2	79.0	83.2	74.9	81.9	89.9	93.9	94.8	93.2	86.3	73.1
40-44 years	24.6	25.5	25.6	21.0	22.5	23.3	24.3	25.2	26.6	23.9	26.2	28.7	30.0	30.3	29.8	27.6	22.5
45-49 years	1.7	1.7	1.7	1.4	1.5	1.6	1.7	1.7	1.8	1.6	1.8	2.0	2.0	2.1	2.0	1.9	1.5
Births per 1,000 Population																	
	27.2	26.5	25.6	25.7	26.1	25.9	24.8	27.5	28.6	25.3	24.2	25.6	31.5	34.5	31.0	28.5	26.6
Age-Specific Death Rates (Deaths per 1,000 Population)																	
0-4 years	7.6	7.2	6.9	6.6	6.8	6.9	6.5	7.0	7.0	6.9	7.2	7.0	7.8	7.9	7.8	7.3	6.8
5-9 years	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5
10-14 years	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.4
15-19 years	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.9
20-24 years	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.2	1.1	1.2	1.3	1.2	1.2	1.0
25-29 years	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.2	1.1	1.2	1.3	1.2	1.2	1.1
30-34 years	1.5	1.4	1.3	1.3	1.3	1.3	1.2	1.3	1.3	1.3	1.4	1.3	1.5	1.5	1.5	1.4	1.3
35-39 years	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.8	1.7	1.9	2.0	1.9	1.8	1.7
40-44 years	3.1	3.0	2.8	2.7	2.8	2.8	2.6	2.8	2.8	2.8	3.0	2.8	3.2	3.2	3.2	3.0	2.7
45-49 years	5.3	5.0	4.8	4.7	4.7	4.8	4.5	4.9	4.9	4.8	5.0	4.9	5.4	5.5	5.4	5.1	4.8
50-54 years	8.8	8.3	7.9	7.7	7.8	7.9	7.4	8.0	8.0	7.9	8.3	8.0	9.0	9.1	8.9	8.3	8.1
55-59 years	13.7	13.0	12.5	12.1	12.2	12.4	11.7	12.6	12.6	12.4	13.0	12.6	14.0	14.3	14.0	13.1	12.7
60-64 years	21.4	20.3	19.4	18.8	19.1	19.3	18.1	19.6	19.6	19.3	20.3	19.6	21.9	22.3	21.8	20.4	19.8
65 and over	68.0	64.6	61.8	59.9	60.6	61.3	57.9	62.3	62.4	61.5	64.6	62.3	69.6	70.9	69.3	64.8	62.8
Deaths per 1,000 Population																	
	9.2	9.6	9.7	8.4	8.6	8.3	9.4	8.5	8.6	9.6	10.7	10.1	7.6	6.4	7.8	7.8	8.7
Average Annual Net Migration into Each Region, 1951-56																	
Number	3,880	2,180	1,990	43,040	4,740	5,080	3,470	1,330	1,360	2,250	1,640	-560	-1,830	2,580	1,900	2,050	75,210
% of total	5.2	2.9	2.6	57.2	6.3	6.8	4.6	1.8	1.8	3.0	2.2	-0.7	-2.4	3.4	2.5	2.7	100.00
Average Annual Immigration into Ontario, 1951-56 (Number)																	82,600

Source: Registrar-General's Branch, Department of the Provincial Secretary, *Vital Statistics*; Dominion Bureau of Statistics, *Census of Canada*.

BIRTHS, MARRIAGES AND DEATHS, ONTARIO, 1956 AND 1959

COUNTIES AND REGIONS

	Year	Live Births		Marriages		Deaths	
		No.	Rate Per 1,000 Pop'n	No.	Rate Per 1,000 Pop'n	No.	Rate Per 1,000 Pop'n
EASTERN ONTARIO							
A—Ottawa Valley							
Carleton	1956	7,586	26.8	2,585	9.1	2,555	9.0
	1959	8,608	26.8	2,578	8.0	2,673	8.3
Lanark	1956	835	22.0	263	6.9	426	11.2
	1959	825	20.5	282	7.0	458	11.4
Prescott	1956	726	27.6	213	8.1	241	9.2
	1959	738	27.2	188	6.9	248	9.2
Renfrew	1956	2,416	30.9	603	7.7	697	8.9
	1959	2,554	30.8	558	6.7	698	8.4
Russell	1956	539	28.4	114	6.0	167	8.8
	1959	549	27.0	155	7.6	156	7.7
Sub-total	1956	12,102	27.2	3,778	8.5	4,086	9.2
	1959	13,274	27.0	3,761	7.7	4,233	8.6
B—Upper St. Lawrence							
Dundas	1956	441	26.0	119	7.0	196	11.5
	1959	409	23.8	137	8.0	191	11.1
Frontenac	1956	2,085	27.2	592	7.7	684	8.9
	1959	2,210	26.8	648	7.8	694	8.4
Glenarry	1956	470	25.1	139	7.4	180	9.6
	1959	479	24.6	152	7.8	202	10.4
Grenville	1956	526	25.6	142	6.9	221	10.7
	1959	522	23.4	140	6.3	230	10.3
Leeds	1956	965	22.4	307	7.1	448	10.4
	1959	1,030	22.9	302	6.7	475	10.6
Stormont	1956	1,664	29.5	493	8.7	497	8.8
	1959	1,718	27.7	464	7.5	492	7.9
Sub-total	1956	6,151	26.5	1,792	7.7	2,226	9.6
	1959	6,368	25.6	1,843	7.4	2,284	9.2
TOTAL, EASTERN ONTARIO							
	1956	18,253	27.0	5,570	8.2	6,312	9.3
	1959	19,642	26.6	5,604	7.6	6,517	8.8

BIRTHS, MARRIAGES AND DEATHS, ONTARIO, 1956 AND 1959—Continued

COUNTIES AND REGIONS

		Live Births		Marriages		Deaths	
	Year	No.	Rate Per 1,000 Pop'n	No.	Rate Per 1,000 Pop'n	No.	Rate Per 1,000 Pop'n
LAKE ONTARIO							
Durham	1956	961	26.8	242	6.8	307	8.6
	1959	943	24.3	215	5.5	357	9.2
Haliburton	1956	179	22.3	54	6.7	63	7.9
	1959	214	23.0	51	5.5	81	8.7
Hastings	1956	2,379	28.4	739	8.8	771	9.2
	1959	2,575	28.5	709	7.9	822	9.1
Lennox & Addington	1956	499	23.1	129	6.0	220	10.2
	1959	559	23.5	150	6.3	247	10.4
Northumberland	1956	874	23.0	252	6.6	402	10.6
	1959	893	22.7	261	6.6	417	10.6
Peterborough	1956	1,771	26.1	500	7.4	604	8.9
	1959	1,875	25.1	509	6.8	638	8.5
Prince Edward	1956	544	25.7	115	5.4	227	10.7
	1959	569	25.2	139	6.2	239	10.6
Victoria	1956	602	21.3	234	8.3	368	13.0
	1959	573	19.4	211	7.2	383	13.0
TOTAL, LAKE ONTARIO	1956	7,809	25.6	2,265	7.4	2,962	9.7
	1959	8,201	25.0	2,245	6.8	3,184	9.7
METROPOLITAN							
Halton	1956	1,992	29.2	409	6.0	434	6.4
	1959	3,104	29.5	529	5.0	627	6.0
Ontario	1956	3,018	27.8	802	7.4	866	8.0
	1959	3,554	27.7	874	6.8	935	7.3
Peel	1956	2,373	28.6	483	5.8	562	6.8
	1959	2,884	28.7	543	5.4	603	6.0
York	1956	36,337	25.2	14,633	10.2	12,355	8.6
	1959	42,429	26.3	15,242	9.4	13,483	8.3
TOTAL, METROPOLITAN	1956	43,720	25.7	16,327	9.6	14,217	8.4
	1959	51,971	26.6	17,188	8.8	15,648	8.0
NIAGARA							
A—Burlington							
Brant	1956	1,875	24.0	617	7.9	782	10.0
	1959	1,903	23.1	573	6.9	721	8.7
Wentworth	1956	8,430	26.7	2,790	8.8	2,608	8.2
	1959	8,670	25.9	2,763	8.2	2,817	8.4
Sub-total	1956	10,305	26.1	3,407	8.6	3,390	8.6
	1959	10,573	25.3	3,336	8.0	3,538	8.5
B Niagara							
Haldimand	1956	616	23.6	163	6.3	263	10.1
	1959	639	22.7	186	6.6	277	9.8
Lincoln	1956	2,921	26.1	877	7.8	903	8.1
	1959	2,991	24.2	862	7.0	991	8.0
Welland	1956	3,910	26.1	1,254	8.4	1,209	8.1
	1959	3,944	24.4	1,159	7.2	1,272	7.9
Sub-total	1956	7,447	25.9	2,294	8.0	2,375	8.3
	1959	7,574	24.2	2,207	7.0	2,540	8.1
TOTAL, NIAGARA	1956	17,752	26.0	5,701	8.4	5,765	8.5
	1959	18,147	24.8	5,543	7.6	6,078	8.3
LAKE ERIE							
Elgin	1956	1,249	21.1	421	7.1	590	10.0
	1959	1,347	21.3	426	6.7	618	9.8
Middlesex	1956	4,921	25.8	1,535	8.0	1,740	9.1
	1959	5,358	26.1	1,720	8.4	1,938	9.4
Norfolk	1956	1,136	24.6	364	7.9	451	9.8
	1959	1,205	24.3	357	7.2	492	9.9
Oxford	1956	1,657	25.4	531	8.1	617	9.5
	1959	1,698	23.9	482	6.8	658	9.3
TOTAL, LAKE ERIE	1956	8,963	24.8	2,851	7.9	3,398	9.4
	1959	9,608	24.7	2,985	7.7	3,706	9.5
LAKE ST. CLAIR							
A—Border							
Essex	1956	6,836	27.7	2,194	8.9	1,964	8.0
	1959	6,363	24.7	1,853	7.2	2,199	8.5
Kent	1956	2,312	27.1	760	8.9	845	9.9
	1959	2,288	25.6	696	7.8	856	9.6
Sub-total	1956	9,148	27.5	2,954	8.9	2,809	8.5
	1959	8,651	24.9	2,549	7.3	3,055	8.8
B—Lambton							
Lambton	1956	2,572	28.6	670	7.4	775	8.6
	1959	2,755	28.2	619	6.3	852	8.7
Sub-total	1956	2,572	28.6	670	7.4	775	8.6
	1959	2,755	28.2	619	6.3	852	8.7
TOTAL, LAKE ST. CLAIR	1956	11,720	27.8	3,624	8.6	3,584	8.5
	1959	11,406	25.6	3,168	7.1	3,907	8.8

BIRTHS, MARRIAGES AND DEATHS, ONTARIO, 1956 AND 1959—Continued

COUNTIES AND REGIONS							
		Live Births		Marriages		Deaths	
	Year	No.	Rate Per 1,000 Pop'n	No.	Rate Per 1,000 Pop'n	No.	Rate Per 1,000 Pop'n
UPPER GRAND RIVER							
Huron	1956	1,192	23.0	365	7.1	547	10.6
	1959	1,291	24.3	367	6.9	588	11.1
Perth	1956	1,271	23.1	412	7.5	632	11.5
	1959	1,272	22.7	401	7.2	595	10.6
Waterloo	1956	4,001	26.9	1,254	8.4	1,259	8.5
	1959	4,253	25.3	1,217	7.2	1,328	7.9
Wellington	1956	1,901	25.1	618	8.2	745	9.8
	1959	2,021	24.7	591	7.2	800	9.8
TOTAL, UPPER GRAND RIVER	1956	8,365	25.3	2,649	8.0	3,183	9.6
	1959	8,837	24.6	2,576	7.2	3,311	9.2
GEORGIAN BAY							
A—Blue Water							
Bruce	1956	938	22.3	310	7.4	539	12.8
	1959	922	21.6	301	7.0	556	13.0
Dufferin	1956	358	23.0	113	7.3	185	11.9
	1959	328	19.8	98	5.9	183	11.1
Grey	1956	1,352	22.2	420	6.9	694	11.4
	1959	1,253	20.1	412	6.6	672	10.8
Simcoe	1956	3,308	26.0	892	7.0	1,209	9.5
	1959	3,413	25.2	934	6.9	1,276	9.4
Sub-total	1956	5,956	24.2	1,735	7.1	2,627	10.7
	1959	5,916	23.0	1,745	6.8	2,687	10.5
B—Highlands							
Muskoka	1956	610	24.3	208	8.3	249	9.9
	1959	595	22.8	202	7.7	274	10.5
Parry Sound	1956	752	26.8	232	8.3	290	10.3
	1959	704	23.6	240	8.0	301	10.1
Sub-total	1956	1,362	25.6	440	8.3	539	10.1
	1959	1,299	23.2	442	7.9	575	10.3
TOTAL, GEORGIAN BAY	1956	7,318	24.5	2,175	7.3	3,166	10.6
	1959	7,215	23.1	2,187	7.0	3,262	10.4
NORTHEASTERN ONTARIO							
A—Clay Belt							
Cochrane	1956	2,785	32.1	706	8.1	609	7.0
	1959	2,973	32.8	656	7.2	659	7.3
Nipissing	1956	1,967	32.5	542	9.0	455	7.5
	1959	2,189	32.6	564	8.4	493	7.3
Timiskaming	1956	1,460	29.0	402	8.0	437	8.7
	1959	1,474	28.8	355	6.9	423	8.3
Sub-total	1956	6,212	31.5	1,650	8.4	1,501	7.6
	1959	6,636	31.7	1,575	7.5	1,575	7.5
B—Nickel Range							
Manitoulin	1956	303	27.4	85	7.7	121	10.9
	1959	310	27.4	83	7.6	116	10.7
Sudbury	1956	4,981	35.1	1,191	8.4	852	6.0
	1959	5,043	32.7	1,152	7.5	900	5.8
Sub-total	1956	5,284	34.5	1,276	8.3	973	6.4
	1959	5,344	32.3	1,235	7.5	1,016	6.1
C—Sault							
Algoma	1956	2,547	31.0	741	9.0	641	7.8
	1959	4,055	36.7	861	7.8	746	6.8
Sub-total	1956	2,547	31.0	741	9.0	641	7.8
	1959	4,055	36.7	861	7.8	746	6.8
TOTAL, NORTHEASTERN ONTARIO	1956	14,043	32.5	3,667	8.5	3,115	7.2
	1959	16,035	33.1	3,671	7.6	3,337	6.9
LAKEHEAD-NORTHWESTERN ONTARIO							
Kenora	1956	1,467	31.1	340	7.2	369	7.8
	1959	1,601	32.2	303	6.1	386	7.7
Rainy River	1956	811	31.8	208	8.2	226	8.9
	1959	789	29.5	184	6.9	216	8.1
Thunder Bay	1956	3,295	26.8	905	7.4	934	7.6
	1959	3,672	27.1	944	7.0	1,048	7.8
TOTAL, LAKEHEAD-NORTH- WESTERN ONTARIO	1956	5,573	28.5	1,453	7.4	1,529	7.8
	1959	6,062	28.6	1,431	6.8	1,650	7.8
GRAND TOTAL, ONTARIO	1956	143,516	26.6	46,282	8.6	47,231	8.7
	1959	157,124	26.4	46,598	7.8	50,600	8.5

Note: Births are shown by place of residence of mothers, marriages by place of occurrence and deaths by place of residence.
Source: Registrar-General's Branch, Department of the Provincial Secretary, *Vital Statistics*.

Population Projections

The population projections which follow are based upon the estimates made in the Ontario Submission to the Royal Commission on Canada's Economic Prospects, modified by changes in trends which are discernible in the 1956 Census data. No claim is made here that they are the final word in the matter of probable population growth and movement in the various parts of Ontario. They are merely informed guesses.

In some instances, particularly in some of the small subdivisions of the Province, trends may alter markedly within a few years. Thus, the projections can serve only as an indication of the present rate and direction of population changes. If they bring to the attention of interested parties some of the factors affecting population growth and if they stimulate thinking of the future implications of such growth, they will have served their purpose.

Our belief at this time is that Ontario—which had a population of approximately 6,089,000 as of June 1, 1960—will have close to seven million by 1966 and nearly nine million by 1976.

Three of the ten economic regions are expected to increase at a faster rate than the Province as a whole. The population of the Metropolitan Region, which constituted 31.5 per cent of the Provincial population in 1956, is expected to amount to 34.4 per cent of total population by 1976. That of the Niagara Region is expected to increase from 12.6 per cent to 13.0 per cent of the total population between 1956 and 1976 and of the Lakehead-Northwestern Ontario Region from 3.6 per cent to 3.9 per cent during the same period. The population of all other regions will also increase substantially between 1956 and 1976, but, except for the Northeastern Ontario Region which is expected to grow at about the same rate as the Province, expansion will probably be slower than that for the Province as a whole. Anticipated rates of growth of the individual counties vary to an even greater extent; Halton and Peel may triple their population between 1956 and 1976 while counties such as Bruce, Dufferin, Timiskaming, and Manitoulin will probably increase little or not at all.

PROJECTED POPULATION OF METROPOLITAN AREAS 50,000 AND OVER, COUNTIES AND REGIONS, 1966, 1971 AND 1976

	1956		1966		1971		1976	
	Regions or Counties	Cities or Towns	Regions or Counties	Cities or Towns	Regions or Counties	Cities or Towns	Regions or Counties	Cities or Towns
EASTERN ONTARIO.....	676,482		850,000		962,000		1,086,000	
A—Ottawa Valley.....	444,185		560,000		631,000		712,000	
Carleton.....	282,630		368,000		419,000		477,000	
Ottawa ¹		266,290		349,000		399,000		457,000
Lanark.....	38,025		43,000		47,000		52,000	
Prescott.....	26,291		27,000		28,000		28,000	
Renfrew.....	78,245		101,000		115,000		131,000	
Russell.....	18,994		21,000		22,000		24,000	
B—Upper St. Lawrence....	232,297		290,000		331,000		374,000	
Dundas.....	16,978		18,000		19,000		20,000	
Frontenac.....	76,534		98,000		112,000		125,000	
Kingston ¹		58,290		77,000		89,000		94,000
Glengarry.....	18,693		20,000		22,000		24,000	
Grenville.....	20,563		27,000		32,000		37,000	
Leeds.....	43,077		50,000		55,000		61,000	
Stormont.....	56,452		77,000		91,000		107,000	
LAKE ONTARIO.....	304,587		370,000		407,000		452,000	
Durham.....	35,827		47,000		53,000		63,000	
Haliburton.....	8,012		8,000		9,000		9,000	
Hastings.....	83,745		103,000		115,000		128,000	
Lennox & Addington....	21,611		24,000		26,000		28,000	
Northumberland.....	38,018		46,000		51,000		56,000	
Peterborough.....	67,981		88,000		98,000		111,000	
Prince Edward.....	21,145		24,000		24,000		25,000	
Victoria.....	28,248		30,000		31,000		32,000	
METROPOLITAN.....	1,700,446		2,357,000		2,694,000		3,089,000	
Halton.....	68,297		132,000		174,000		216,000	
Ontario.....	108,440		150,000		173,000		197,000	
Oshawa ¹		64,792		92,000		110,000		129,000
Peel.....	83,108		144,000		180,000		226,000	
York.....	1,440,601		1,931,000		2,167,000		2,450,000	
Toronto ²		1,358,028		1,808,000		2,029,000		2,275,000

PROJECTED POPULATION OF METROPOLITAN AREAS 50,000 AND OVER, COUNTIES AND REGIONS, 1966, 1971 AND 1976—Continued

	1956		1966		1971		1976	
	Regions or Counties	Cities or Towns	Regions or Counties	Cities or Towns	Regions or Counties	Cities or Towns	Regions or Counties	Cities or Towns
NIAGARA	681,643		897,000		1,018,000		1,167,000	
A—Burlington	394,230		508,000		572,000		651,000	
Brant	77,992		88,000		94,000		102,000	
Brantford ¹		56,089		65,000		68,000		71,000
Wentworth	316,238		420,000		478,000		549,000	
Hamilton ²		327,831		438,000		499,000		571,000
B—Niagara	287,413		389,000		446,000		516,000	
Haldimand	26,067		29,000		30,000		32,000	
Lincoln	111,740		159,000		186,000		219,000	
St. Catharines ¹		85,055		120,000		143,000		168,000
Welland	149,606		201,000		230,000		265,000	
Niagara Falls ¹		51,411		68,000		78,000		89,000
LAKE ERIE	361,361		437,000		489,000		545,000	
Elgin	59,114		64,000		67,000		72,000	
Middlesex	190,897		246,000		285,000		323,000	
London ²		154,453		204,000		240,000		275,000
Norfolk	46,122		51,000		54,000		58,000	
Oxford	65,228		76,000		83,000		92,000	
LAKE ST. CLAIR	422,202		528,000		599,000		681,000	
Essex	246,901		314,000		359,000		412,000	
Windsor ²		185,865		232,000		263,000		294,000
Kent	85,362		96,000		102,000		108,000	
Lambton	89,939		118,000		138,000		161,000	
Sarnia ¹		52,856		80,000		96,000		124,000
UPPER GRAND RIVER	331,250		404,000		450,000		506,000	
Huron	51,728		55,000		57,000		59,000	
Perth	55,057		59,000		64,000		67,000	
Waterloo	148,774		199,000		229,000		269,000	
Kitchener-Waterloo ¹		79,886		114,000		135,000		159,000
Wellington	75,691		91,000		100,000		111,000	
GEORGIAN BAY	298,855		339,000		357,000		383,000	
A—Bluewater	245,626		285,000		303,000		329,000	
Bruce	42,070		42,000		42,000		42,000	
Dufferin	15,569		16,000		16,000		16,000	
Grey	60,971		62,000		62,000		62,000	
Simcoe	127,016		165,000		183,000		209,000	
B—Highlands	53,229		54,000		54,000		54,000	
Muskoka	25,134		25,000		25,000		25,000	
Parry Sound	28,095		29,000		29,000		29,000	
NORTHEASTERN ONTARIO	432,578		551,000		627,000		718,000	
A—Clay Belt	197,484		218,000		231,000		246,000	
Cochrane	86,768		91,000		94,000		96,000	
Nipissing	60,452		77,000		86,000		98,000	
Timiskaming	50,264		50,000		51,000		52,000	
B—Nickel Range	153,035		219,000		262,000		314,000	
Manitoulin	11,060		11,000		11,000		11,000	
Sudbury	141,975		208,000		251,000		303,000	
Sudbury ¹		95,582		145,000		179,000		209,000
C—Sault	82,059		114,000		134,000		158,000	
Algoma	82,059		114,000		134,000		158,000	
Sault Ste. Marie ¹		50,704		63,000		72,000		88,000
LAKEHEAD-NORTHWESTERN ONTARIO	195,529		257,000		295,000		346,000	
Kenora	47,156		62,000		70,000		79,000	
Rainy River	25,483		30,000		32,000		35,000	
Thunder Bay	122,890		165,000		193,000		232,000	
Fort-William-Port Arthur ¹		84,609		107,000		121,000		136,000
GRAND TOTAL, ONTARIO	5,404,933		6,990,000		7,898,000		8,973,000	

¹Including adjacent suburban areas as defined in the Dominion Bureau of Statistics Census of Metropolitan and Urban Areas (1956).

²Ontario portion of Ottawa metropolitan area.

 Source: Dominion Bureau of Statistics, *Census of Canada: Projections by the Ontario Department of Economics*.

Employment and Earnings

INDEX NUMBERS OF EMPLOYMENT, INDUSTRIAL COMPOSITE, ONTARIO, SELECTED YEARS 1947 TO 1960

SELECTED URBAN AREAS									
(1949 = 100)									
	Eastern Ontario Region	Metro-politan Region	Niagara Region			Lake Erie Region	Lake St. Clair Region	Upper Grand River Region	Lakehead-Northwestern Ontario Region
	Ottawa-Hull	Toronto	Hamilton	St. Catharines	Brantford	London	Windsor	Kitchener	Fort William-Port Arthur
1947	91.4	93.2	91.6	97.7	96.8	92.6	92.2	96.7	102.3
1951	108.4	110.7	109.5	121.1	99.9	108.8	107.7	106.2	106.3
1956	119.6	128.3	113.8	124.9 ¹	88.6	117.6	104.9	113.0	112.8
1958	121.2	131.0	105.0	109.6 ¹	87.1	119.7	78.6	113.7	115.2
1959	124.9	131.3	112.0	111.3 ¹	90.7	123.8	79.3	121.4	111.8
1960	124.2	129.9	111.3	108.9 ¹	81.2	123.9	76.2	121.4	108.0

¹Includes Port Colborne and Welland in addition to urban area as defined in 1956 Census.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

INDEX NUMBERS OF EMPLOYMENT BY INDUSTRY, ONTARIO, 1958 TO 1960									
SELECTED URBAN AREAS									
(1949 = 100)									
	1958	1959	1960				1958	1959	1960
EASTERN ONTARIO REGION				NIAGARA REGION—Continued					
Ottawa-Hull				St. Catharines ¹					
Manufacturing	103.6	103.8	100.7	Manufacturing	101.9	105.7	103.8		
Pulp and Paper Mills	109.3	113.0	106.4	Pulp and Paper Mills	125.3	128.3	128.7		
Printing, Publishing and Allied Industries	111.8	109.4	109.1	Iron and Steel Products	92.4	101.4	100.1		
Iron and Steel Products	57.2	57.4	56.0	Transportation Equipment	114.8	113.2	110.1		
Construction	142.3	152.7	144.0	Construction	173.9	122.7	99.1		
Trade	125.2	128.2	128.5	Industrial Composite	109.6	111.3	108.9		
Retail	119.3	121.2	120.8	LAKE ERIE REGION					
Finance, Insurance and Real Estate	118.4	121.4	122.3	London					
Service	121.0	131.1	140.5	Manufacturing	113.0	115.2	112.5		
Industrial Composite	121.3	124.9	124.2	Food and Beverages	107.1	108.5	107.0		
METROPOLITAN REGION				Clothing (textile and fur)	80.2	80.3	81.8		
Toronto				Paper Products	90.8	94.4	97.0		
Manufacturing	119.5	115.8	112.2	Printing, Publishing and Allied Industries	106.0	111.4	109.5		
Food and Beverages	111.1	113.7	112.3	Iron and Steel Products	87.4	96.6	85.5		
Meat Products	126.3	131.7	127.5	Electrical Apparatus and Supplies	137.6	141.8	185.8		
Rubber Products	87.7	94.0	78.7	Construction	101.2	116.2	113.7		
Textile Products (except clothing)	84.3	85.7	82.7	Transportation, Storage, Communication	122.2	120.8	127.0		
Clothing (textile and fur)	85.4	85.8	82.8	Retail Trade	123.1	127.5	130.9		
Men's Clothing	87.4	84.6	82.3	Finance, Insurance and Real Estate	114.5	149.9	156.3		
Women's Clothing	90.4	87.3	83.1	Industrial Composite	119.7	123.8	123.9		
Paper Products (except pulp and paper) ¹	123.5	124.5	124.5	LAKE ST. CLAIR REGION					
Printing, Publishing and Allied Industries	121.2	122.6	125.5	Windsor					
Iron and Steel Products	122.3	126.1	119.4	Manufacturing	70.5	70.9	68.0		
Transportation Equipment	237.7	133.9	114.8	Food and Beverages	122.3	122.2	118.1		
Non-Ferrous Metal Products	105.2	114.6	112.0	Iron and Steel Products	82.4	79.4	78.5		
Electrical Apparatus and Supplies	114.3	116.2	112.6	Transportation Equipment	62.9	65.3	61.9		
Chemical Products	119.6	121.5	122.4	Trade	102.7	100.8	101.5		
Construction	157.7	171.2	161.2	Industrial Composite	78.6	79.3	76.2		
Building and General Engineering ²	150.1	162.5	151.0	UPPER GRAND RIVER REGION					
Transportation, Storage, Communication	144.7	146.2	144.4	Kitchener					
Electric and Motor Transportation ³	128.0	134.0	136.3	Manufacturing	103.1	107.9	107.2		
Public Utility Operation	132.0	125.2	122.1	Food and Beverages	128.1	135.3	138.4		
Trade	136.4	140.2	143.7	Rubber Products	82.7	88.2	88.2		
Wholesale	149.1	152.6	157.4	Leather Products	68.2	70.2	65.6		
Retail	128.5	134.1	136.6	Wood Products	101.8	100.8	101.0		
Finance, Insurance and Real Estate	161.5	166.0	169.4	Electrical Apparatus and Supplies	248.8	249.4	236.0		
Insurance	155.4	158.1	160.7	Construction	163.5	211.3	202.2		
Service	148.1	154.1	158.3	Industrial Composite	113.7	121.4	121.4		
Hotels and Restaurants	121.2	124.0	121.2	LAKEHEAD-NORTHWESTERN ONTARIO					
Industrial Composite	131.0	131.3	129.9	REGION					
NIAGARA REGION				Fort William-Port Arthur					
Brantford				Manufacturing	113.9	103.8	96.2		
Manufacturing	81.9	86.0	74.6	Pulp and Paper Mills	119.2	117.6	124.4		
Textile Products (except clothing)	83.1	72.1	79.5	Transportation Equipment	145.4	106.6	58.6		
Iron and Steel Products	63.1	72.0	54.4	Transportation, Storage, Communication	104.5	103.1	100.0		
Industrial Composite	87.1	90.7	81.2	Trade	120.6	116.3	114.9		
Hamilton				Industrial Composite	115.2	111.8	108.0		
Manufacturing	93.5	100.7	97.9						
Textile Products (except clothing)	85.0	71.5	57.4						
Clothing (textile and fur)	39.3	29.0	25.9						
Iron and Steel Products	98.8	121.1	122.1						
Electrical Apparatus and Supplies	106.6	97.1	87.2						
Non-Metallic Mineral Products	93.0	102.9	101.0						
Construction	136.0	122.4	154.7						
Transportation, Storage, Communication	129.4	130.4	133.9						
Retail Trade	146.7	148.7	149.5						
Industrial Composite	105.0	112.0	111.3						

¹Includes paper boxes and bags; roofing papers; miscellaneous paper products.

²Building includes buildings and structures; special trade contractors.

³General engineering includes other construction, other than highways, bridges and streets.

⁴Electric and motor transportation includes interurban bus and coach transportation; urban and suburban transportation systems; taxicab; truck transportation; services incidental to transportation; other transportation.

⁵Includes Port Colborne and Welland in addition to urban area as defined in 1956 Census.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

INDEX NUMBERS OF EMPLOYMENT IN MANUFACTURING BY MONTHS, ONTARIO, 1956 TO 1960

	REGIONS												
	(1949 = 100)												
	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
EASTERN ONTARIO													
1956	119.3	115.2	115.1	116.1	117.6	119.4	123.2	123.6	124.2	120.2	121.1	118.6	117.3
1957	116.5	116.0	116.2	116.2	116.0	117.5	118.1	118.8	119.0	118.7	112.9	115.4	113.1
1958	109.2	110.8	107.1	107.1	107.9	109.8	111.2	111.1	110.0	110.9	109.6	108.4	106.5
1959	107.6	105.2	105.6	106.3	107.0	108.4	110.1	110.0	109.8	108.5	108.2	106.9	105.2
1960	105.7	103.7	103.0	103.8	104.9	107.9	109.0	108.1	108.0	106.2	105.2	104.7	103.6
A -Ottawa Valley													
1956	115.5	109.1	109.0	110.7	112.8	116.0	120.0	120.1	121.3	119.6	119.2	115.2	112.8
1957	115.1	111.3	112.4	113.1	113.1	116.2	117.7	118.5	118.8	118.8	116.2	113.5	111.1
1958	105.2	109.0	101.0	100.7	107.9	105.2	108.3	107.3	105.9	106.8	105.8	103.9	101.0
1959	104.3	99.5	100.3	101.1	101.8	104.4	107.5	108.0	108.3	106.8	106.4	104.4	103.3
1960	104.4	100.9	99.8	100.8	102.6	106.9	108.4	107.7	107.7	106.7	104.8	104.1	102.9
B—Upper St. Lawrence													
1956	123.3	121.6	121.5	121.7	122.6	123.0	126.5	127.2	127.3	120.9	123.1	122.3	122.0
1957	118.0	121.0	120.3	119.5	119.0	118.8	118.6	119.2	119.2	118.6	109.4	117.5	115.3
1958	113.7	112.7	113.2	113.4	113.0	114.2	114.0	114.9	116.1	114.9	113.2	112.7	111.9
1959	110.8	110.7	110.8	111.4	112.0	112.2	112.7	112.0	111.3	110.2	110.1	109.4	107.1
1960	106.9	106.4	106.0	106.8	107.2	109.0	109.6	108.5	108.4	105.7	105.5	105.3	104.3
LAKE ONTARIO													
1956	111.1	102.0	102.0	104.1	106.4	109.6	112.6	117.4	115.2	122.6	115.6	114.4	111.7
1957	114.1	112.6	113.5	112.6	115.4	114.8	120.1	115.6	120.3	120.3	110.8	107.9	105.1
1958	104.6	104.7	102.8	102.0	103.8	104.3	104.4	107.9	108.0	112.4	102.7	102.0	100.3
1959	107.2	101.4	101.4	102.9	104.6	107.0	112.5	110.6	111.3	112.0	108.0	105.5	103.4
1960	103.5	102.8	101.4	103.3	103.3	104.6	105.6	108.2	105.8	109.0	101.5	100.5	96.1
METROPOLITAN													
1956	126.4	117.9	124.4	126.3	126.8	127.1	128.1	126.1	125.4	127.0	129.9	130.1	127.4
1957	128.0	127.7	125.9	128.1	128.6	129.0	129.5	128.5	128.3	126.9	129.9	128.9	124.3
1958	125.5	123.2	122.7	123.2	124.2	125.1	126.1	124.4	122.2	128.6	128.3	128.4	126.0
1959	123.3	125.9	120.8	122.0	122.7	123.8	125.6	124.0	125.0	125.8	126.1	120.4	121.1
1960	119.7	121.3	119.7	121.1	121.1	121.5	121.7	116.7	117.0	119.5	120.3	119.8	116.8
NIAGARA													
1956	107.0	99.6	103.1	106.0	107.3	108.3	109.7	108.3	108.3	108.8	109.3	109.0	106.1
1957	104.7	105.5	105.8	105.9	106.8	105.1	107.7	107.0	101.1	107.7	104.0	101.7	98.2
1958	94.6	97.1	95.9	95.9	96.6	96.5	97.4	94.5	91.2	92.7	88.3	95.9	93.7
1959	100.0	95.4	96.3	97.5	99.0	99.8	102.2	99.5	103.5	104.9	103.5	99.7	98.7
1960	96.3	98.9	98.9	98.2	97.8	98.4	97.5	93.9	96.4	97.8	94.6	94.1	88.5
A -Burlington													
1956	102.8	100.8	101.0	102.1	103.5	104.3	105.4	103.7	102.3	101.9	102.6	103.6	102.2
1957	100.7	101.4	102.0	102.2	102.8	100.1	103.8	102.8	100.8	100.7	99.2	97.4	94.7
1958	91.5	95.0	93.9	94.2	95.0	94.0	94.8	93.7	84.3	84.2	82.6	93.8	93.0
1959	98.6	93.8	94.5	95.9	97.9	98.5	101.1	100.9	100.8	102.0	101.1	99.7	97.3
1960	94.1	97.1	97.0	96.8	96.6	97.3	96.0	93.9	93.3	93.2	91.5	90.2	86.6
B—Niagara													
1956	115.0	97.3	107.0	113.4	114.4	116.0	117.9	117.1	119.6	121.9	122.2	119.4	113.8
1957	114.1	113.3	113.1	113.1	114.3	114.6	115.2	114.9	122.5	120.9	112.9	109.8	104.9
1958	100.6	101.2	99.7	99.2	99.6	101.3	102.4	95.9	104.3	108.9	99.2	99.8	95.2
1959	102.6	98.5	99.7	100.6	100.9	102.1	104.3	97.0	108.4	110.3	108.0	99.6	101.3
1960	100.3	102.4	102.4	100.8	100.0	100.5	100.4	94.0	102.3	106.4	100.5	101.5	92.4
LAKE ERIE													
1956	113.1	108.8	112.4	111.2	111.4	113.4	113.8	113.1	111.0	115.6	116.0	117.1	113.6
1957	114.2	115.4	114.5	112.8	112.7	113.4	116.8	116.7	115.4	118.0	115.4	113.2	106.1
1958	111.3	109.1	109.2	111.4	112.1	110.2	111.4	114.3	110.9	113.9	112.7	111.0	109.0
1959	114.5	112.2	113.5	114.8	115.5	116.0	117.0	116.9	116.6	114.8	114.8	113.3	108.6
1960	110.1	109.3	111.4	109.5	108.1	109.5	111.5	111.3	110.3	110.4	109.2	111.4	109.5
LAKE ST. CLAIR													
1956	105.1	107.4	108.9	108.8	108.5	105.7	105.7	105.2	90.0	102.1	105.3	108.4	105.0
1957	97.1	106.8	104.1	101.1	100.8	102.1	99.2	97.4	89.8	93.9	92.3	92.1	85.2
1958	85.2	78.7	84.9	85.4	83.8	81.8	83.1	80.1	76.8	90.2	82.6	85.2	84.0
1959	83.3	79.2	84.7	80.9	80.4	81.3	84.4	81.5	86.1	88.3	85.5	82.7	84.9
1960	81.1	84.5	83.8	80.9	80.0	81.6	81.8	70.0	85.7	86.2	79.0	80.7	79.3
A Border													
1956	102.9	105.7	107.8	107.5	107.0	103.5	103.3	102.5	85.3	98.9	102.8	106.7	103.9
1957	93.5	105.8	102.7	98.7	98.0	99.1	95.1	93.4	84.0	89.4	87.9	87.8	80.2
1958	77.5	72.8	79.9	80.5	78.5	76.4	77.5	73.9	69.9	85.9	77.0	79.8	78.1
1959	78.6	72.8	79.1	78.9	78.4	79.2	81.0	74.9	80.2	83.0	79.9	76.3	79.2
1960	75.4	79.2	78.5	75.3	74.6	75.7	75.7	61.8	80.4	81.4	73.1	75.1	73.5

INDEX NUMBERS OF EMPLOYMENT IN MANUFACTURING BY MONTHS, ONTARIO, 1956 TO 1960—Continued

REGIONS

(1949=100)

	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
B—Lambton													
1956	116.8	116.3	115.2	116.1	116.7	117.6	118.7	119.2	115.4	119.5	119.0	117.6	110.4
1957	116.1	112.0	111.9	113.9	115.5	118.2	120.7	119.3	120.7	117.9	115.7	115.1	111.8
1958	112.8	110.6	111.8	111.3	111.8	111.2	113.3	113.1	114.2	113.4	112.9	114.5	115.5
1959	109.1	114.1	114.6	91.9	91.3	93.0	102.5	117.2	118.2	117.2	115.9	117.1	116.1
1960	112.8	113.6	112.8	111.8	112.1	114.0	114.6	114.8	114.9	112.6	111.2	110.9	110.8
UPPER GRAND RIVER													
1956	105.3	99.8	100.2	101.9	103.1	104.5	106.6	106.1	107.1	107.8	109.4	109.8	107.0
1957	107.1	106.9	107.0	107.0	106.8	107.9	109.9	108.5	108.7	107.7	107.4	105.5	101.7
1958	101.5	100.1	98.8	98.1	98.5	99.7	102.6	103.2	102.3	103.6	103.9	104.3	102.6
1959	105.8	102.1	102.3	102.7	103.6	104.9	107.7	107.5	109.8	108.9	108.4	107.4	104.5
1960	105.0	105.3	105.1	105.2	104.5	104.9	106.2	104.4	105.8	107.2	103.6	104.1	101.2
GEORGIAN BAY													
1956	109.4	100.1	103.1	105.1	106.6	109.1	112.1	111.4	112.0	114.1	116.4	113.3	109.1
1957	113.2	109.1	109.5	110.7	112.5	116.2	117.7	115.7	116.3	116.2	116.2	111.6	106.4
1958	109.5	103.4	103.8	105.5	108.4	110.6	111.1	111.9	112.4	112.4	115.0	112.3	107.5
1959	111.6	105.7	108.2	108.0	109.6	111.2	113.3	113.7	114.4	115.1	117.1	113.9	108.7
1960	108.3	108.4	108.0	108.0	109.4	109.8	110.4	109.6	110.3	108.4	109.2	107.6	100.2
A—Blue Water													
1956	110.1	101.9	104.7	106.8	108.0	109.3	112.1	110.6	112.0	113.9	117.3	114.5	110.5
1957	114.6	110.1	111.0	112.2	112.6	116.0	118.2	116.2	117.1	118.0	119.2	115.6	109.4
1958	111.9	106.3	106.4	108.6	110.6	112.4	113.1	113.2	113.9	114.9	117.9	115.7	110.2
1959	114.3	108.7	110.8	110.8	112.1	113.4	115.4	115.8	116.3	118.1	120.3	117.8	112.5
1960	112.4	112.9	112.5	113.0	113.6	113.1	113.6	113.3	114.1	112.1	114.1	112.4	104.5
B—Highlands													
1956	103.7	86.7	91.1	92.8	96.0	107.1	112.3	117.6	112.2	115.0	110.2	104.4	98.8
1957	102.4	102.0	99.0	99.6	111.6	118.0	113.8	111.9	110.7	103.3	93.7	80.9	84.1
1958	91.8	81.6	83.8	82.3	92.0	97.8	96.8	102.7	101.1	94.4	94.1	87.8	87.4
1959	91.4	84.1	89.3	86.9	91.3	95.6	97.3	97.8	100.8	93.0	94.0	85.3	81.1
1960	78.3	75.4	75.4	71.7	79.1	86.0	88.1	83.4	83.2	81.3	73.8	72.6	68.8
NORTHEASTERN ONTARIO													
1956	126.9	116.4	116.1	117.8	120.3	122.2	133.7	133.8	136.7	135.2	133.2	130.0	126.9
1957	131.9	126.0	124.4	125.9	128.6	133.9	140.2	141.5	141.7	135.9	132.9	128.1	123.9
1958	118.6	122.7	120.5	119.7	120.6	126.9	128.4	128.8	128.6	121.7	101.2	97.3	106.5
1959	128.0	116.6	117.4	118.9	122.0	129.1	135.3	136.4	137.4	134.7	132.5	129.3	126.2
1960	126.5	125.4	125.2	125.3	125.1	126.2	128.8	130.6	131.2	128.7	127.6	123.9	119.5
A—Clay Belt													
1956	120.3	106.7	106.0	108.6	112.7	124.9	129.9	132.9	130.3	129.7	126.6	120.6	114.5
1957	127.0	115.1	115.1	118.7	122.2	129.3	136.4	141.1	142.1	135.4	128.8	122.4	117.5
1958	119.6	115.4	113.5	112.7	113.5	121.9	125.6	127.8	127.8	125.7	121.9	118.0	111.0
1959	121.2	110.3	101.3	111.5	116.9	125.4	134.6	134.1	133.5	128.9	123.5	118.2	115.9
1960	120.6	115.1	112.2	112.5	112.5	120.0	128.5	131.4	130.7	127.0	124.3	117.3	115.1
B—Nickel Range													
1956	130.2	123.0	122.6	123.4	122.4	129.0	132.8	129.1	138.7	136.1	135.4	134.8	134.6
1957	132.7	132.4	128.2	128.5	128.4	135.0	137.4	137.5	138.2	134.0	132.7	130.0	130.1
1958	111.3	129.1	128.3	128.9	126.5	132.7	133.5	131.3	128.3	109.3	54.6	47.7	85.1
1959	125.2	114.8	117.7	119.3	119.3	126.3	128.9	129.0	131.6	130.6	130.0	127.9	126.3
1960	128.3	125.1	125.6	125.5	125.3	128.0	131.8	132.5	131.8	130.0	129.5	127.6	126.8
C—Sault													
1956	130.1	117.0	117.2	119.1	124.2	131.6	137.5	139.5	139.7	138.5	136.1	132.4	128.5
1957	134.9	127.8	127.8	128.7	133.9	136.3	146.1	145.9	145.0	138.3	136.4	130.5	122.4
1958	125.2	121.8	118.0	115.6	119.9	124.9	125.3	126.9	128.6	131.6	132.8	131.9	124.9
1959	135.7	123.3	122.7	124.2	128.7	134.9	142.5	146.0	146.5	143.2	142.1	139.5	134.4
1960	129.2	133.9	135.0	135.1	134.7	129.2	125.9	128.0	130.8	128.8	128.3	125.3	115.2
LAKEHEAD-NORTHWESTERN ONTARIO													
1956	117.0	114.2	115.5	113.5	115.3	119.1	121.7	120.6	121.9	120.2	117.6	113.5	111.3
1957	119.7	114.3	114.6	114.6	116.8	122.3	124.6	126.2	127.3	125.1	120.8	114.9	115.1
1958	119.0	112.9	113.0	114.4	114.1	122.6	127.4	130.1	127.2	124.2	117.6	113.8	110.5
1959	113.5	109.0	109.9	110.5	111.3	116.9	121.0	123.2	123.6	116.1	112.6	104.7	103.6
1960	110.3	103.8	103.4	103.5	103.1	110.9	115.7	119.5	119.8	116.9	114.0	107.9	105.6
TOTAL, ONTARIO													
1956	116.2	109.8	113.3	114.9	115.7	116.7	118.2	117.4	115.6	117.8	119.1	119.2	116.4
1957	116.1	116.6	115.8	116.6	117.1	117.2	118.6	117.6	117.3	116.8	115.8	114.3	110.0
1958	109.3	108.4	108.1	108.3	108.9	109.7	110.9	109.8	108.8	111.8	108.6	109.9	108.2
1959	110.5	108.5	107.6	108.2	109.1	110.5	113.0	111.6	112.7	113.9	113.1	109.2	108.5
1960	107.5	108.5	108.5	108.0	107.8	108.8	109.2	105.5	107.7	108.9	107.2	106.6	103.2

Source: Memoranda supplied by the Dominion Bureau of Statistics.

INDEX NUMBERS OF EMPLOYMENT IN MINING BY MONTHS, ONTARIO, 1956 TO 1960

SELECTED REGIONS													
(1949 = 100)													
	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
LAKE ST. CLAIR													
1956	149.1	121.6	131.7	132.6	146.0	152.6	166.4	176.3	175.9	150.0	144.1	147.1	145.3
1957	143.9	144.7	141.2	142.4	139.4	143.2	145.4	145.4	139.6	144.9	141.4	149.8	148.9
1958	158.6	148.0	144.9	160.8	158.1	162.6	162.1	171.4	170.5	176.2	174.0	171.8	160.8
1959	163.7	151.1	159.5	166.5	169.2	164.8	166.1	170.5	168.3	167.4	166.5	156.8	158.1
1960	155.8	150.7	149.8	152.0	141.0	151.1	153.7	157.7	168.7	163.4	163.9	163.0	155.1
NORTHEASTERN ONTARIO													
1956	127.1	121.1	121.4	122.7	123.8	124.9	126.7	128.9	129.4	129.4	132.6	131.9	131.8
1957	146.5	135.8	138.1	139.0	140.1	142.2	145.4	148.8	151.8	150.0	153.5	155.5	157.8
1958	157.4	160.4	163.0	165.6	163.8	168.0	169.1	168.2	167.3	162.2	133.5	133.0	135.2
1959	166.5	164.8	164.5	166.4	168.4	168.5	170.3	169.2	167.8	165.2	165.5	164.3	163.1
1960	153.2	164.2	162.8	161.1	157.0	154.0	154.3	151.1	150.6	148.3	146.7	145.4	143.1
A—Clay Belt													
1956	103.3	102.9	102.4	102.8	102.8	103.4	104.1	105.4	102.9	103.0	102.4	104.4	103.4
1957	103.7	104.2	103.9	103.2	101.4	102.7	104.4	105.9	106.1	103.5	103.8	102.7	102.5
1958	102.7	103.2	102.9	102.7	102.1	103.2	104.3	102.6	103.4	102.8	102.0	101.9	101.1
1959	101.4	101.2	101.3	100.9	100.4	101.1	103.3	103.0	103.1	101.0	101.2	100.1	100.3
1960	101.8	101.3	101.6	101.9	100.8	101.4	103.3	103.3	103.9	101.9	101.4	100.9	99.9
B—Nickel Range													
1956	146.9	141.4	142.1	143.5	146.0	145.6	147.1	148.2	149.8	147.9	157.3	146.6	147.6
1957	151.2	149.0	153.9	153.2	153.2	154.3	155.4	154.1	150.4	145.7	149.7	148.2	146.7
1958	100.9	148.4	149.7	149.5	135.3	131.0	126.9	124.0	122.0	106.4	1.5	1.4	15.1
1959	143.9	125.8	132.5	138.4	144.1	143.0	144.8	147.0	148.9	147.9	148.5	152.0	153.6
1960	161.0	157.8	160.4	159.0	160.6	161.1	161.7	161.6	160.9	160.8	161.5	163.9	162.7
C—Sault													
1956	351.0	262.9	269.4	286.3	293.5	311.8	330.9	352.3	391.4	401.2	421.1	443.5	447.9
1957	748.8	515.9	540.9	625.3	625.3	644.9	686.0	742.7	830.6	858.1	904.4	974.6	1,037.0
1958	1,312.1	1,073.6	1,126.8	1,186.3	1,245.1	1,347.1	1,381.8	1,405.1	1,385.6	1,379.2	1,418.2	1,408.9	1,382.7
1959	1,260.8	1,339.8	1,289.8	1,300.9	1,315.9	1,315.4	1,310.3	1,276.3	1,234.3	1,211.8	1,212.5	1,181.8	1,141.0
1960	857.7	1,126.4	1,073.8	1,040.2	958.8	879.1	853.8	785.4	770.4	749.6	718.6	683.1	653.5
LAKEHEAD-NORTHWESTERN ONTARIO													
1956	97.7	92.8	93.3	94.1	93.5	96.9	98.9	101.1	101.2	99.5	101.1	100.2	100.1
1957	107.2	101.7	102.5	104.8	102.1	104.0	104.8	113.0	112.6	113.2	113.4	109.2	105.1
1958	95.6	102.4	99.6	97.7	87.4	87.6	85.0	86.2	100.1	100.3	99.9	100.7	100.1
1959	116.6	98.5	99.8	101.4	104.1	112.8	123.6	126.5	129.1	128.0	128.4	123.9	122.7
1960	138.5	125.4	129.0	133.6	135.7	142.5	149.2	147.5	149.8	146.5	138.7	132.4	131.1
TOTAL, ONTARIO													
1956	128.0	119.2	120.0	121.3	123.5	126.4	129.4	131.1	133.5	132.4	134.4	133.1	132.2
1957	147.0	135.0	137.3	138.6	142.9	143.1	146.7	151.4	153.2	151.5	154.2	154.7	155.6
1958	155.9	156.6	158.4	161.2	159.4	163.8	165.0	165.0	165.9	161.2	138.8	137.4	138.1
1959	165.1	160.4	160.1	162.0	164.6	167.3	170.7	169.5	168.8	166.1	165.8	164.1	162.4
1960	156.4	162.7	161.3	160.6	157.8	157.1	158.7	156.2	157.6	155.9	152.1	150.3	146.9

Source: Memoranda supplied by the Dominion Bureau of Statistics.

INDEX NUMBERS OF PAYROLLS, INDUSTRIAL COMPOSITE, ONTARIO, 1958 TO 1960

SELECTED URBAN AREAS															
(1949 = 100)															
	Eastern Ontario Region	Lake Ontario Region	Metropolitan Region		Niagara Region			Lake Erie Region	Lake St. Clair Region		Upper Grand River Region		Northeastern Ontario Region		Lakehead-Northwestern Ontario Region
	Ottawa-Hull	Peterborough	Oshawa	Toronto	Brantford	Hamilton	Niagara Falls	St. Catharines ¹	London	Sarnia	Windsor	Galt ²	Kitchener	Sault Ste. Marie	Fort William-Port Arthur
1958	198.3	172.7	263.4	218.7	132.6	172.6	180.5	177.3	196.3	245.1	120.4	177.9	183.4	241.1	184.4
1959	215.0	187.0	282.1	227.1	144.9	197.1	172.3	189.8	212.8	233.3	130.9	191.7	208.0	269.1	186.1
1960	222.2	179.9	304.1	231.5	132.6	201.5	175.0	190.8	220.9	254.4	128.8	203.3	214.4	270.0	189.2

¹Includes Port Colborne and Welland in addition to urban area as defined in 1956 Census.

²Includes Preston.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

INDEX NUMBERS OF PAYROLLS IN MANUFACTURING BY MONTHS, ONTARIO, 1956 TO 1960

REGIONS

(1949 = 100)

	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
EASTERN ONTARIO													
1956	184.7	174.3	175.5	173.6	180.6	183.0	190.1	191.6	195.7	192.3	193.3	188.5	178.4
1957	191.4	187.4	188.9	189.2	188.5	191.4	192.7	195.1	198.5	198.9	189.5	193.2	183.9
1958	185.7	187.4	178.4	180.6	181.8	185.5	189.0	190.7	189.4	189.8	189.5	188.4	178.1
1959	191.6	183.0	183.7	186.1	187.6	190.9	194.6	194.6	196.8	198.1	197.8	197.9	188.7
1960	196.8	192.9	189.8	192.3	194.4	199.5	201.5	200.9	200.6	198.6	199.3	198.5	193.0
A—Ottawa Valley													
1956	179.9	166.0	167.3	168.5	175.8	178.4	187.0	187.7	191.6	190.7	189.7	182.9	172.7
1957	188.6	179.2	182.7	183.1	182.9	188.1	191.5	194.5	197.1	198.4	193.4	189.1	182.8
1958	176.1	186.3	165.9	168.9	172.0	175.9	181.5	180.5	177.8	179.8	179.8	178.1	167.2
1959	184.1	172.2	173.6	175.2	176.9	183.5	188.2	190.5	191.5	193.7	191.5	190.0	182.7
1960	191.4	184.2	180.4	183.3	188.1	193.1	196.5	197.7	196.6	197.2	195.2	194.4	190.3
B—Upper St. Lawrence													
1956	189.5	182.4	183.5	178.5	185.2	187.5	193.3	195.4	199.8	193.9	196.8	194.0	184.0
1957	194.3	195.4	195.0	195.2	194.1	194.6	193.8	195.7	199.9	199.4	185.6	197.4	185.0
1958	194.4	188.5	189.8	191.2	190.7	194.2	195.8	200.1	200.0	198.9	198.2	197.6	188.0
1959	198.5	192.8	192.8	195.9	197.3	197.6	200.4	198.4	201.7	202.1	203.5	205.1	194.1
1960	201.7	200.8	198.3	200.5	200.1	205.2	206.7	203.9	204.2	199.8	202.9	202.3	195.4
LAKE ONTARIO													
1956	176.3	158.8	160.0	164.2	171.0	173.7	178.1	180.4	180.2	192.0	189.5	188.4	179.0
1957	190.3	190.3	191.7	188.6	190.3	193.0	196.5	191.0	192.1	195.0	188.2	187.9	178.4
1958	183.8	183.7	180.7	179.6	180.7	184.7	183.9	188.9	185.0	194.8	182.8	185.9	175.4
1959	197.4	187.3	188.4	190.5	191.5	198.4	205.9	203.6	207.0	204.7	202.7	198.2	190.3
1960	195.0	195.3	192.3	194.5	195.2	200.3	197.7	200.2	196.0	202.2	193.8	192.6	179.9
METROPOLITAN													
1956	198.3	178.9	191.2	197.4	200.3	199.0	201.8	197.8	198.0	201.9	209.6	209.5	193.6
1957	209.5	206.4	202.6	209.0	210.9	210.8	212.0	209.6	208.7	208.0	216.4	221.8	197.8
1958	214.6	206.2	207.0	209.4	212.7	216.4	218.0	213.6	215.4	222.1	221.2	223.0	210.1
1959	218.4	222.5	212.7	213.4	216.5	221.1	224.7	220.2	214.1	225.2	225.2	215.2	210.2
1960	219.1	220.8	217.8	219.5	221.8	221.6	223.7	213.5	213.6	220.7	222.4	222.2	211.6
NIAGARA													
1956	163.4	147.5	153.1	161.6	163.8	166.4	165.1	165.1	164.0	168.6	172.0	172.5	161.5
1957	170.6	170.1	170.4	170.8	188.5	172.3	173.5	174.1	163.5	171.1	170.4	166.6	156.0
1958	157.1	159.2	158.1	159.9	162.2	164.8	164.4	158.7	147.8	150.6	146.2	159.4	153.8
1959	177.0	166.9	169.7	171.6	175.1	176.9	181.2	177.2	181.5	186.9	186.8	177.8	172.9
1960	175.6	180.9	179.4	179.3	180.2	178.4	177.4	171.5	174.5	177.7	173.5	172.4	161.8
A—Burlington													
1956	157.0	148.4	150.0	154.3	156.0	159.1	158.0	158.7	156.3	160.1	162.5	165.1	155.4
1957	165.1	163.1	165.1	165.1	182.9	165.7	168.2	168.5	162.9	164.4	165.0	160.5	150.0
1958	153.3	155.8	155.9	158.1	159.9	161.2	160.8	159.9	137.9	139.5	138.5	156.7	155.6
1959	176.5	164.6	167.3	169.9	174.5	175.6	180.9	181.5	179.9	184.1	186.1	180.5	172.7
1960	173.7	179.3	177.7	178.6	180.1	178.6	175.7	172.8	172.4	172.6	170.5	168.0	158.1
B—Niagara													
1956	175.3	145.9	158.7	175.0	178.4	180.1	178.3	177.0	178.0	184.2	189.6	186.2	172.7
1957	182.7	183.1	180.3	181.4	194.1	184.5	183.4	184.4	186.4	189.2	180.3	177.8	167.0
1958	164.1	165.7	162.2	163.4	166.4	171.5	170.9	156.4	166.1	171.2	160.4	164.4	150.5
1959	178.1	171.1	174.0	174.6	176.3	179.1	181.9	169.4	184.5	192.1	188.1	172.6	173.4
1960	179.1	183.8	182.5	180.7	180.3	177.9	180.5	169.1	178.6	187.4	179.1	180.7	168.8
LAKE ERIE													
1956	172.7	161.2	169.7	169.2	170.9	173.5	176.6	171.5	170.4	180.3	181.7	180.7	166.6
1957	183.1	178.8	179.4	181.1	190.3	181.7	187.8	187.0	184.9	192.0	185.6	185.7	163.1
1958	186.0	177.8	177.4	183.2	185.8	185.4	188.4	193.6	186.8	195.2	193.4	190.9	174.6
1959	199.2	192.7	195.9	196.1	200.3	204.1	206.5	204.3	205.1	201.5	204.5	198.4	181.2
1960	198.6	191.3	196.4	193.4	194.1	198.9	205.6	205.8	201.8	204.0	200.3	201.8	189.2
LAKE ST. CLAIR													
1956	155.1	157.4	161.1	162.7	162.7	147.5	158.5	155.6	134.2	153.7	152.3	166.3	149.1
1957	150.4	162.3	156.1	157.3	156.2	152.9	157.4	152.5	140.5	146.1	148.4	148.6	126.4
1958	142.6	124.3	134.2	139.9	137.9	137.4	138.9	133.2	124.7	146.9	138.1	144.9	131.7
1959	145.7	134.6	147.0	140.1	141.4	145.8	149.8	145.2	147.9	158.1	154.4	141.6	142.6
1960	145.6	146.4	149.9	147.9	147.8	150.3	150.7	127.5	148.2	151.7	144.2	143.2	138.9
A—Border													
1956	147.7	153.0	155.7	157.7	157.1	138.0	150.1	147.1	122.7	145.0	143.7	159.9	142.1
1957	139.1	156.7	149.2	148.7	147.0	141.8	145.0	140.5	125.5	132.5	135.8	136.0	110.6
1958	120.7	108.6	119.1	125.6	123.2	122.8	123.6	118.1	106.2	133.5	123.0	130.1	114.6
1959	131.9	117.1	131.6	130.8	132.8	136.9	140.4	128.6	132.0	143.7	139.8	123.3	125.7
1960	129.0	131.3	135.0	132.3	132.2	134.6	134.2	107.0	131.8	135.7	126.8	125.9	120.7

INDEX NUMBERS OF PAYROLLS IN MANUFACTURING, BY MONTHS, ONTARIO, 1956 TO 1960--Continued

REGIONS													
(1949 = 100)													
	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
B -Lambton													
1956	195.4	181.0	190.2	190.1	193.2	199.2	204.3	201.8	196.7	201.0	199.2	200.8	187.2
1957	211.7	193.2	193.3	204.2	206.2	213.3	224.7	217.6	221.7	220.4	216.7	217.3	212.2
1958	219.8	210.1	216.6	218.3	217.3	217.4	222.8	215.8	226.2	220.5	221.0	226.2	225.2
1959	221.8	231.2	231.3	190.9	189.2	194.5	201.5	236.3	235.6	237.2	235.4	242.3	236.0
1960	237.3	229.9	232.5	234.3	234.2	236.7	241.8	240.6	238.7	240.4	240.7	238.6	239.2
UPPER GRAND RIVER													
1956	157.9	145.7	147.3	151.7	155.6	158.4	161.5	156.6	160.7	164.6	168.8	170.2	154.1
1957	166.9	164.9	166.1	166.3	165.3	169.7	172.4	169.4	169.7	170.5	170.2	168.1	150.2
1958	164.4	157.6	156.8	157.6	158.3	162.7	169.0	168.8	166.6	170.9	172.6	174.2	157.2
1959	180.3	171.7	173.3	174.0	174.8	179.2	185.6	183.6	186.1	188.8	188.6	184.8	173.4
1960	183.5	181.3	181.3	182.7	181.9	182.3	187.1	183.7	187.1	188.4	188.2	184.9	173.6
GEORGIAN BAY													
1956	166.2	149.2	156.0	157.9	162.9	165.1	171.3	171.3	171.0	175.5	180.3	175.1	158.6
1957	175.7	168.9	172.0	174.9	177.4	186.5	186.7	182.9	142.3	186.4	187.2	181.8	161.8
1958	179.5	167.3	166.9	174.6	177.9	180.2	180.8	185.3	185.1	189.2	191.9	185.6	169.0
1959	189.3	178.0	184.3	182.1	185.7	188.9	192.2	192.2	197.0	196.2	200.2	195.1	179.4
1960	190.3	187.5	188.2	190.2	191.4	192.0	194.8	193.7	196.6	192.4	194.0	190.4	172.9
A—Blue Water													
1956	167.5	152.4	159.0	161.3	165.8	166.3	171.3	170.0	171.0	175.5	180.8	176.7	160.3
1957	181.2	169.7	174.1	177.4	177.7	185.7	187.2	183.5	186.2	188.9	191.4	187.1	165.7
1958	181.6	170.2	168.8	178.8	179.6	180.7	183.2	185.2	186.2	191.2	194.7	189.0	171.0
1959	192.6	180.7	186.6	185.5	189.3	191.3	194.1	194.5	197.9	200.1	204.9	201.0	185.2
1960	197.0	193.6	194.9	198.8	198.6	197.8	199.1	199.7	202.2	198.4	202.4	198.4	180.2
B—Highlands													
1956	156.7	126.5	135.2	134.0	142.4	156.7	171.5	181.1	171.1	175.8	176.4	163.8	146.1
1957	165.4	163.2	157.0	157.1	175.9	192.3	183.2	178.5	175.8	168.5	156.7	143.4	133.6
1958	164.5	145.9	152.8	143.9	165.0	176.6	164.0	186.2	176.6	175.1	172.3	161.0	154.8
1959	165.6	159.2	167.8	157.9	160.4	171.7	178.4	175.8	190.1	168.6	166.5	152.9	137.9
1960	143.3	143.7	140.3	130.2	141.2	151.7	164.7	151.6	157.0	149.8	134.6	133.6	121.4
NORTHEASTERN ONTARIO													
1956	192.9	174.9	174.8	175.9	178.0	190.6	197.7	200.6	206.2	209.0	209.0	201.3	196.6
1957	214.3	200.3	198.1	201.1	202.7	210.7	223.3	227.1	231.1	220.5	215.7	211.0	229.6
1958	194.7	204.8	203.1	201.5	201.0	215.6	210.8	203.1	205.2	181.3	171.8	167.9	170.3
1959	219.6	198.3	201.0	209.3	206.6	217.2	225.7	229.0	231.3	231.3	231.8	225.3	228.2
1960	223.0	221.2	222.1	219.7	218.1	217.7	221.2	224.7	230.7	225.2	227.4	221.5	227.0
A -Clay Belt													
1956	172.6	156.9	155.1	157.1	159.5	177.7	183.3	185.6	184.6	185.9	182.2	174.7	168.8
1957	191.2	174.3	172.3	184.6	176.9	194.3	205.3	206.9	213.2	201.7	193.7	190.0	181.4
1958	187.6	180.0	183.6	181.4	177.3	187.2	190.0	193.1	198.3	196.6	193.4	195.2	174.6
1959	193.1	178.4	152.7	180.2	188.3	198.2	211.5	211.6	210.3	206.3	200.2	193.2	186.8
1960	200.3	191.1	190.9	186.6	182.8	195.0	211.6	214.6	211.4	210.4	210.3	199.1	200.2
B—Nickel Range													
1956	197.0	184.8	183.6	183.8	181.9	192.2	197.2	201.8	204.8	211.0	209.2	206.8	207.1
1957	214.5	209.6	203.2	201.9	204.2	210.8	224.1	225.0	224.8	219.5	219.9	215.1	215.5
1958	177.2	217.7	217.9	215.6	212.5	221.6	220.1	198.3	191.5	124.0	97.5	88.3	121.7
1959	206.9	186.4	193.0	213.4	196.1	203.1	205.1	209.8	213.0	210.6	213.6	210.2	228.8
1960	218.1	211.0	210.6	209.4	211.9	212.9	219.9	220.8	218.3	219.1	220.8	216.0	245.9
C Sault													
1956	203.7	177.6	180.2	181.6	187.7	198.7	209.1	210.7	224.0	224.2	228.9	215.5	206.1
1957	225.7	209.7	212.2	212.7	220.6	223.0	236.2	244.8	251.7	235.7	227.9	222.5	210.9
1958	217.4	209.6	201.5	201.3	206.3	230.6	216.4	215.9	205.2	232.9	236.0	233.5	219.8
1959	251.8	226.5	224.8	226.9	231.9	247.0	259.1	263.3	267.5	273.2	276.0	266.4	259.2
1960	245.8	255.4	258.7	256.1	251.7	240.2	230.0	236.7	259.2	243.2	247.8	244.6	226.4
LAKEHEAD-NORTHWESTERN ONTARIO													
1956	175.1	164.7	168.2	165.8	169.9	182.1	181.3	181.3	180.9	183.1	178.5	174.1	171.2
1957	186.9	175.9	177.8	177.7	178.4	188.9	199.3	197.2	198.8	196.4	187.1	182.9	182.4
1958	189.5	180.6	178.8	180.4	180.1	189.5	199.1	202.5	202.7	200.3	191.0	188.8	179.9
1959	188.2	178.7	180.0	180.6	181.0	193.8	199.6	204.7	201.4	191.6	190.8	180.2	176.6
1960	191.7	175.4	176.7	173.4	175.4	186.7	200.0	209.7	207.7	206.2	202.6	197.9	188.7
TOTAL, ONTARIO													
1956	178.8	164.5	171.4	176.0	178.8	178.8	182.1	180.1	177.5	184.2	187.9	188.7	175.3
1957	187.4	186.2	184.5	187.1	188.8	189.0	191.7	190.2	188.3	189.1	190.2	189.8	173.6
1958	183.1	178.8	179.0	181.2	182.9	186.6	187.9	184.8	181.5	187.0	183.6	187.6	176.8
1959	193.9	188.7	187.7	188.2	190.6	195.0	199.4	196.3	196.0	202.1	201.8	193.4	187.9
1960	196.3	195.2	194.2	194.7	195.8	196.7	198.5	191.0	194.2	197.8	196.3	195.1	186.0

Source: Memoranda supplied by the Dominion Bureau of Statistics.

INDEX NUMBERS OF PAYROLLS IN MINING BY MONTHS, ONTARIO, 1956 TO 1960

SELECTED REGIONS

(1949 = 100)

	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
LAKE ST. CLAIR													
1956	221.4	186.4	203.9	198.5	217.6	226.6	242.1	262.4	255.8	210.2	220.1	218.1	214.5
1957	219.9	216.2	213.0	216.8	225.1	220.6	221.4	222.0	206.6	220.6	215.1	230.7	230.8
1958	264.4	232.8	226.3	251.2	261.9	269.5	276.4	289.7	293.7	312.9	285.3	311.2	258.3
1959	284.4	256.7	275.1	277.7	293.6	281.6	290.6	304.3	296.8	295.1	295.7	281.0	264.2
1960	280.5	273.1	262.5	257.8	255.1	279.7	271.0	271.9	313.4	293.2	309.5	306.5	271.9

NORTHEASTERN ONTARIO

1956	185.3	172.7	174.6	176.1	179.2	180.7	182.7	187.4	187.7	192.2	195.0	200.3	194.7
1957	233.7	209.4	212.2	215.9	216.6	221.3	233.9	237.0	242.7	240.6	250.4	258.7	265.1
1958	257.7	268.7	272.9	275.7	270.1	271.8	280.3	266.8	271.2	241.8	226.2	227.0	219.3
1959	289.0	282.7	289.5	291.5	294.2	289.2	294.5	290.4	287.0	285.9	287.9	292.9	282.8
1960	271.5	285.5	288.8	286.7	276.3	272.1	276.0	260.7	262.5	260.4	257.1	260.7	270.9

A—Clay Belt

1956	143.0	141.2	142.6	140.3	142.4	142.6	143.3	145.4	142.9	143.0	143.7	148.4	140.4
1957	149.7	149.6	149.4	148.7	147.0	149.0	154.1	152.1	151.6	148.4	152.5	150.7	142.9
1958	150.3	152.8	154.2	152.7	151.3	146.7	151.4	147.9	150.3	150.3	150.3	151.8	144.0
1959	151.4	150.2	152.7	150.4	149.8	148.2	154.1	154.6	150.2	151.3	152.5	153.7	148.6
1960	157.5	152.5	156.6	158.3	154.1	156.4	161.5	156.3	160.5	158.6	157.2	160.8	157.6

B—Nickel Range

1956	212.5	203.2	203.5	206.0	207.7	207.8	211.5	210.8	212.1	220.2	221.7	221.8	223.9
1957	236.5	225.7	233.7	233.6	233.4	231.5	250.5	245.6	240.4	229.0	237.4	238.8	238.2
1958	146.4	238.9	243.0	227.8	221.3	210.0	206.9	162.6	162.3	64.7	2.4	2.3	14.7
1959	244.2	203.6	224.0	238.7	242.6	243.1	244.1	249.0	251.4	249.7	255.2	262.6	267.0
1960	286.0	276.6	279.6	279.0	283.7	279.3	283.6	285.8	282.3	280.6	283.2	287.0	230.9

C—Sault

1956	588.3	404.8	425.0	472.5	499.1	527.7	536.4	612.9	644.0	685.0	725.8	774.7	751.2
1957	1,350.5	925.6	936.3	1,026.4	1,064.3	1,149.3	1,225.3	1,349.8	1,513.2	1,588.0	1,687.0	1,879.3	1,861.9
1958	2,473.5	2,063.8	2,107.6	2,289.8	2,230.3	2,406.2	2,542.5	2,590.1	2,659.8	2,675.9	2,754.2	2,750.3	2,611.4
1959	2,483.5	2,632.2	2,608.8	2,587.7	2,625.8	2,537.2	2,563.2	2,436.3	2,409.1	2,380.5	2,370.7	2,413.0	2,238.0
1960	1,745.8	2,178.1	2,172.2	2,095.0	1,912.5	1,821.5	1,804.8	1,535.4	1,537.2	1,531.5	1,461.7	1,463.0	1,436.7

LAKEHEAD-NORTHWESTERN ONTARIO

1956	143.3	132.2	134.0	133.8	134.0	140.6	146.4	149.2	149.3	149.8	152.2	153.3	144.8
1957	167.6	155.6	162.2	166.4	150.1	161.6	168.8	180.7	175.8	178.5	180.7	178.7	152.1
1958	152.8	168.6	162.3	154.3	142.5	137.7	131.5	131.3	158.5	168.7	169.3	161.1	148.3
1959	200.6	162.6	169.6	173.0	181.3	194.1	210.3	214.0	221.0	234.3	228.6	217.6	200.5
1960	246.1	212.0	227.8	242.7	248.3	257.3	269.7	270.5	267.6	260.8	244.4	239.5	212.5

TOTAL, ONTARIO

1956	188.8	171.8	174.2	175.9	180.1	184.2	189.0	192.6	196.2	198.6	201.0	204.8	196.7
1957	235.7	210.6	214.6	218.7	224.8	225.0	237.3	243.5	246.3	244.8	253.4	260.5	249.4
1958	257.4	264.2	266.4	269.2	265.0	266.6	274.2	264.7	271.7	249.7	236.8	235.1	225.1
1959	288.4	276.8	283.2	285.0	289.4	288.3	296.9	292.5	290.6	291.8	291.4	293.9	280.9
1960	279.5	284.3	287.9	288.4	282.4	281.3	286.7	274.0	278.6	277.1	269.2	271.5	272.4

Source: Memoranda supplied by the Dominion Bureau of Statistics.

AVERAGE WEEKLY WAGES AND SALARIES, INDUSTRIAL COMPOSITE, ONTARIO, SELECTED YEARS 1947 TO 1960

SELECTED URBAN AREAS

	Eastern Ontario Region	Metro- politan Region	Niagara Region			Lake Erie Region	Lake St. Clair Region	Upper Grand River Region	Lakehead- Northwestern Ontario Region
	Ottawa-Hull	Toronto	Hamilton	St. Catharines	Brantford	London	Windsor	Kitchener	Ft. William- Port Arthur
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1947	33.36	37.02	37.42	41.28	35.95	33.86	43.49	35.25	39.09
1951	45.01	51.68	54.11	60.07	51.01	48.42	58.22	47.20	52.86
1956	58.60	67.61	69.97	74.76 ¹	61.76	61.24	71.33	61.36	66.04
1958	64.50	73.96	76.41	79.12 ¹	66.68	66.52	77.04	65.64	71.57
1959	67.87	76.57	81.75	83.31 ¹	69.93	69.56	83.30	69.66	74.35
1960	70.47	78.98	84.01	85.57 ¹	71.39	72.07	84.99	71.74	78.07

¹Includes Port Colborne and Welland in addition to urban area as defined in 1956 Census.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

AVERAGE WEEKLY WAGES AND SALARIES IN MANUFACTURING BY MONTHS, ONTARIO, 1956 TO 1960

	REGIONS												
	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
EASTERN ONTARIO													
1956	64.20	62.77	63.22	62.04	63.71	63.47	63.98	64.24	65.32	66.30	66.16	66.00	63.20
1957	68.19	67.12	67.52	67.63	67.49	67.62	67.66	68.09	69.16	69.50	69.62	69.41	67.42
1958	70.05	70.14	68.63	69.51	69.50	69.68	70.09	70.75	70.21	70.45	71.20	71.57	68.85
1959	73.31	71.64	71.61	72.03	72.19	72.53	72.76	72.83	73.78	75.13	75.22	76.19	73.81
1960	76.56	76.58	75.89	76.24	76.25	76.01	76.12	76.41	76.32	76.76	77.81	77.84	76.47
A—Ottawa Valley													
1956	62.53	61.10	61.58	61.11	62.53	61.71	62.54	62.71	63.43	63.99	63.87	64.02	61.74
1957	65.97	64.95	65.53	65.26	65.13	65.20	65.47	66.01	66.70	67.18	66.93	67.02	66.24
1958	66.64	68.74	65.11	66.53	66.50	66.32	66.48	66.70	66.34	66.49	67.19	67.76	65.47
1959	69.79	68.45	68.43	68.53	68.69	69.50	69.28	69.77	69.91	71.73	71.22	71.98	70.00
1960	72.43	72.20	71.52	71.97	72.52	71.44	71.67	72.53	72.16	72.94	73.56	73.69	73.00
B—Upper St. Lawrence													
1956	65.84	64.35	64.76	62.91	64.84	65.20	65.40	65.75	67.20	68.67	68.47	67.96	64.61
1957	70.46	69.21	69.47	69.98	69.82	70.09	69.95	70.27	71.75	71.95	72.61	71.85	68.61
1958	73.13	71.57	71.72	72.10	72.18	72.72	73.46	74.48	73.65	74.04	74.85	75.00	71.81
1959	76.55	74.43	74.41	75.13	75.28	75.28	76.01	75.71	77.45	78.34	79.00	80.12	77.41
1960	80.53	80.65	79.91	80.23	79.78	80.45	80.46	80.22	80.40	80.56	81.98	81.89	79.85
LAKE ONTARIO													
1956	65.70	64.47	64.94	65.32	66.58	65.63	65.49	63.63	64.80	64.90	67.94	68.29	66.45
1957	69.18	70.07	70.01	69.43	68.37	69.65	67.77	68.49	66.21	67.17	70.39	72.18	70.37
1958	72.83	72.70	72.88	72.95	72.12	73.43	73.00	72.54	70.95	71.79	73.71	75.50	72.44
1959	76.20	76.53	76.97	76.68	75.80	76.80	75.81	76.14	72.89	75.53	77.52	77.63	76.05
1960	77.63	78.42	78.30	77.74	78.01	78.88	77.03	76.13	76.25	76.33	78.52	78.85	77.06
METROPOLITAN													
1956	70.79	68.48	69.37	70.57	71.31	70.67	71.09	70.82	71.27	71.72	72.84	72.72	68.60
1957	73.82	72.98	72.67	73.68	74.04	73.76	73.95	73.69	73.45	73.99	75.21	76.50	71.86
1958	77.18	75.61	76.19	76.75	77.28	78.10	77.98	77.46	77.61	77.91	77.75	78.34	75.20
1959	79.64	79.66	79.35	78.80	79.45	80.40	80.00	79.94	78.93	80.45	80.27	80.33	78.06
1960	82.13	81.81	80.48	81.49	82.27	81.96	82.59	82.17	81.99	82.79	83.11	83.31	81.39
NIAGARA													
1956	73.36	71.16	71.32	73.21	73.34	73.82	72.27	73.24	72.74	74.44	75.63	76.03	73.13
1957	77.69	77.51	77.38	77.48	78.31	78.77	77.41	78.22	76.87	76.38	78.88	78.75	76.35
1958	79.72	78.79	79.26	80.12	80.65	81.99	81.03	80.68	77.84	78.02	79.53	79.89	78.85
1959	85.01	84.00	84.63	84.48	85.00	85.11	85.11	85.50	84.24	85.57	86.68	85.65	84.13
1960	87.51	87.80	87.08	87.67	88.43	86.97	87.21	87.57	86.81	87.17	87.93	87.90	87.62
A—Burlington													
1956	72.59	69.98	70.57	71.82	71.58	72.50	71.20	72.57	72.62	74.68	75.38	75.82	72.39
1957	77.49	76.51	76.98	76.86	78.30	78.74	77.07	78.00	76.86	77.65	79.06	78.40	75.39
1958	79.63	78.03	79.02	79.82	80.01	81.52	80.66	81.15	77.77	78.75	79.78	79.48	79.62
1959	85.03	83.42	84.16	84.25	84.74	84.75	85.00	85.53	84.80	85.80	87.50	86.08	84.39
1960	87.65	87.82	87.02	87.68	88.60	87.19	86.89	87.41	87.68	87.86	88.45	88.46	86.75
B—Niagara													
1956	74.68	73.48	72.68	75.59	76.36	76.08	74.08	74.06	72.93	74.05	76.04	76.38	74.40
1957	78.03	79.22	78.07	78.53	78.33	78.83	77.99	78.59	74.54	76.64	78.24	79.33	78.01
1958	79.89	80.15	79.70	80.64	81.81	82.81	81.70	79.81	77.95	76.96	79.14	80.63	77.42
1959	84.96	85.04	85.46	84.91	85.49	85.78	85.32	85.43	83.24	85.16	85.21	84.82	83.66
1960	87.28	87.77	87.19	87.65	88.11	86.57	87.80	87.87	85.28	86.00	87.01	86.94	89.20
LAKE ERIE													
1956	62.61	60.74	61.90	62.40	62.93	62.79	63.62	62.18	62.92	63.98	64.27	63.33	60.22
1957	65.46	63.60	64.33	65.90	65.48	65.73	65.99	65.74	65.74	66.77	64.99	67.31	62.90
1958	68.42	66.71	66.49	67.35	67.84	68.82	69.25	69.33	68.95	70.13	70.21	70.40	65.52
1959	71.04	70.23	70.55	69.85	70.88	71.85	72.09	71.40	71.75	71.59	72.70	71.46	68.08
1960	73.48	71.39	71.86	72.09	73.28	74.03	75.18	75.33	74.56	75.27	74.70	73.75	70.35
LAKE ST. CLAIR													
1956	74.88	74.36	75.00	75.85	76.06	70.76	76.05	75.06	75.64	76.41	73.40	77.89	72.13
1957	78.69	77.21	76.10	79.00	78.68	76.01	80.58	79.42	79.41	79.02	81.62	81.93	75.34
1958	84.46	80.20	96.27	83.28	83.55	85.26	84.88	84.42	82.38	82.64	84.83	86.27	79.57
1959	88.48	86.15	88.02	87.75	88.91	90.68	89.83	90.12	86.90	90.57	91.34	86.58	84.86
1960	90.52	87.53	90.39	92.34	92.78	92.87	92.93	91.78	87.15	88.70	92.00	89.46	88.31
A—Border													
1956	72.96	73.59	73.45	74.58	74.63	67.75	73.84	72.92	73.15	74.60	71.12	76.28	69.56
1957	75.67	75.37	73.95	76.64	76.28	72.78	77.56	76.54	75.99	75.39	78.56	78.80	70.18
1958	79.18	75.92	75.80	79.38	79.84	81.83	81.17	81.24	77.26	79.00	81.23	82.87	74.60
1959	85.05	81.71	84.53	84.23	85.73	87.63	87.81	86.98	83.40	87.77	88.58	81.82	80.36
1960	86.54	83.95	87.07	88.95	89.62	89.89	89.51	87.43	82.82	84.18	87.54	84.62	82.95

AVERAGE WEEKLY WAGES AND SALARIES IN MANUFACTURING BY MONTHS, ONTARIO, 1956 TO 1960—Continued

	REGIONS												
	Av. \$	Jan. \$	Feb. \$	Mar. \$	Apr. \$	May \$	June \$	July \$	Aug. \$	Sept. \$	Oct. \$	Nov. \$	Dec. \$
B—Lambton													
1956	83.94	78.11	82.79	82.16	83.08	85.00	86.41	84.96	85.54	84.43	83.98	85.69	85.10
1957	91.51	86.56	86.64	89.94	89.57	90.55	93.36	91.52	92.16	93.83	94.10	94.72	95.20
1958	97.69	95.28	97.24	98.40	97.54	97.97	98.57	95.61	99.27	97.51	98.11	99.06	97.75
1959	101.93	101.54	101.11	104.15	103.84	104.85	98.50	101.04	99.86	101.41	101.74	103.49	101.61
1960	105.02	101.18	103.05	104.83	104.28	103.65	105.27	104.57	103.69	106.57	108.04	107.34	107.75
UPPER GRAND RIVER													
1956	60.37	58.80	59.15	59.93	60.77	61.00	60.99	59.43	60.40	61.45	62.13	62.42	58.00
1957	62.73	62.12	62.48	62.56	62.29	63.30	63.17	62.87	62.82	63.75	63.81	64.16	59.47
1958	65.17	63.36	63.84	64.64	64.67	65.70	66.28	65.85	65.54	66.36	66.87	67.26	61.65
1959	68.34	67.62	68.13	68.12	67.81	68.70	69.29	68.73	66.07	69.70	69.95	69.21	66.73
1960	70.28	69.33	69.43	69.83	70.04	69.90	70.84	70.72	71.12	70.66	71.16	71.39	68.99
GEORGIAN BAY													
1956	54.60	53.56	54.40	54.00	54.95	54.42	54.93	55.26	54.89	55.33	55.67	55.54	52.26
1957	55.77	55.64	56.46	56.81	56.65	57.62	56.94	56.72	43.90	57.55	57.82	58.50	54.59
1958	58.78	58.07	57.72	59.37	58.88	58.44	58.39	59.41	59.09	60.39	59.88	59.29	56.43
1959	60.84	60.43	61.10	60.54	60.82	60.93	60.89	60.68	61.71	61.13	61.27	61.42	59.17
1960	62.80	61.93	62.38	63.03	62.59	62.44	63.00	63.12	63.63	63.33	63.40	63.16	61.61
A—Blue Water													
1956	54.42	53.51	54.34	54.05	54.94	54.43	54.69	54.99	54.64	55.12	55.18	55.22	51.96
1957	56.51	55.19	56.19	56.62	56.42	57.25	56.61	56.43	56.85	57.22	57.39	57.84	54.15
1958	57.96	57.23	56.70	58.83	58.04	57.47	57.92	58.49	58.45	59.49	59.05	58.43	55.48
1959	60.19	59.45	60.20	59.84	60.38	60.32	60.12	60.04	60.79	60.52	60.84	60.97	58.83
1960	62.41	61.20	61.82	62.75	62.34	62.25	62.44	62.79	63.11	62.95	63.12	62.81	61.36
B—Highlands													
1956	55.97	54.02	54.95	53.59	55.03	54.36	56.73	57.19	56.66	56.81	59.50	58.08	54.75
1957	59.93	59.23	58.73	58.38	58.37	60.32	59.57	59.02	58.79	60.38	61.93	65.58	58.85
1958	66.15	66.21	67.50	64.73	66.42	66.58	62.43	66.85	64.37	68.36	67.52	67.62	65.23
1959	66.75	69.76	69.25	67.02	64.77	66.18	67.57	66.22	69.50	66.78	65.27	66.03	62.68
1960	66.89	69.99	68.52	66.23	65.12	64.32	68.19	66.31	68.81	67.19	66.52	67.13	64.36
NORTHEASTERN ONTARIO													
1956	81.41	80.84	81.00	80.33	79.56	79.64	79.54	80.65	81.10	83.16	84.36	83.34	83.38
1957	86.52	85.56	85.66	85.92	84.73	84.63	85.68	86.34	87.71	87.23	87.29	88.60	88.90
1958	88.46	89.76	90.61	90.54	89.64	91.36	88.32	84.82	85.77	80.07	91.47	93.01	86.17
1959	92.34	91.67	92.28	94.83	91.08	90.46	89.73	90.27	90.57	92.35	94.03	93.62	97.15
1960	94.56	94.75	95.34	94.16	93.44	92.36	91.93	92.08	94.16	93.64	95.39	95.70	101.71
A—Clay Belt													
1956	74.21	75.98	75.55	74.73	73.15	73.51	72.89	72.16	73.18	74.04	74.38	74.83	76.17
1957	77.68	78.26	77.18	80.13	74.61	77.47	77.62	75.60	77.31	76.80	77.55	80.02	79.55
1958	81.05	80.44	83.39	83.01	80.55	79.25	78.12	78.09	80.20	80.79	82.00	85.46	81.31
1959	82.27	83.52	77.80	83.50	83.19	81.65	81.18	81.55	81.37	82.70	83.48	84.17	83.08
1960	85.30	85.49	87.56	85.38	83.31	83.31	84.39	83.63	82.83	84.91	86.67	86.99	89.11
B—Nickel Range													
1956	84.68	84.07	83.79	83.29	83.17	83.36	83.05	87.45	82.58	86.76	86.42	85.97	86.22
1957	90.53	88.68	88.82	88.06	89.07	87.48	91.41	91.66	91.11	91.76	92.82	92.70	92.78
1958	89.95	94.46	95.18	93.72	94.08	93.49	93.20	84.54	83.39	63.37	100.41	104.11	80.37
1959	92.64	91.34	92.19	100.55	91.99	89.95	89.02	91.01	90.58	89.98	91.89	91.91	101.32
1960	94.87	94.36	93.85	93.36	94.46	92.76	92.99	92.86	92.29	93.96	95.04	94.37	108.11
C—Sault													
1956	83.20	80.74	81.79	81.10	80.39	80.35	80.90	80.36	85.34	86.14	89.46	86.58	85.28
1957	88.96	87.32	88.34	87.88	87.63	87.00	85.95	89.24	92.30	90.65	88.87	90.65	91.63
1958	92.43	91.47	90.86	92.60	91.50	98.23	91.85	90.44	85.77	94.10	94.51	94.17	93.61
1959	98.67	97.70	97.41	97.13	95.82	97.38	96.72	95.86	97.12	101.42	103.31	101.59	102.58
1960	100.97	101.43	101.92	100.65	99.08	98.51	96.81	98.02	105.04	100.06	102.39	103.54	104.13
LAKEHEAD-NORTHWESTERN ONTARIO													
1956	78.95	76.12	76.86	77.09	77.79	80.70	78.64	79.36	78.34	80.40	80.11	80.90	81.13
1957	82.36	81.21	81.85	81.82	80.59	81.50	84.42	82.46	82.38	82.85	81.69	83.94	83.62
1958	84.07	84.38	83.50	83.22	83.25	81.56	82.45	82.12	84.06	85.08	85.70	87.58	85.90
1959	87.48	86.51	86.40	86.24	85.77	87.46	87.02	87.66	85.96	87.04	89.25	90.65	89.75
1960	91.49	89.22	90.18	88.44	89.66	88.82	91.03	92.45	91.19	92.83	93.51	96.52	94.02
TOTAL, ONTARIO													
1956	70.11	68.28	68.91	69.82	70.45	69.80	70.18	69.91	69.98	71.23	71.89	72.19	68.67
1957	73.54	72.77	72.63	73.40	73.46	73.49	73.71	73.68	73.17	73.77	74.84	75.67	71.87
1958	76.29	75.11	75.44	76.23	76.49	77.44	77.13	76.59	75.93	76.11	76.98	77.67	74.33
1959	79.75	79.08	79.35	79.13	79.42	80.17	80.16	79.96	79.02	80.61	81.04	80.43	78.65
1960	82.12	81.66	81.23	81.84	82.40	82.00	82.38	82.09	81.77	82.37	83.03	82.96	81.68

Source: Memoranda supplied by the Dominion Bureau of Statistics.

AVERAGE WEEKLY WAGES AND SALARIES IN MINING BY MONTHS, ONTARIO, 1956 TO 1960

SELECTED REGIONS													
	Av.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
LAKE ST. CLAIR													
1956	69.04	70.52	71.19	68.86	68.56	66.98	66.34	68.47	66.88	66.82	72.80	70.71	70.37
1957	75.30	71.22	71.94	72.62	76.98	77.13	76.22	76.42	74.07	76.18	76.13	77.09	77.57
1958	82.28	78.72	78.15	78.19	82.89	82.97	85.33	84.61	86.22	88.88	82.06	90.67	80.39
1959	86.90	85.04	86.35	83.48	86.88	85.55	87.57	89.33	88.26	88.22	88.89	89.69	83.60
1960	90.02	90.73	87.72	84.89	90.58	92.66	88.22	86.31	92.97	89.80	94.52	94.12	87.76
NORTHEASTERN ONTARIO													
1956	78.20	76.46	77.19	76.98	77.68	77.61	77.35	78.02	77.82	79.66	78.89	81.49	79.30
1957	85.10	82.74	82.44	83.36	82.94	83.48	86.25	85.47	85.74	86.04	87.55	89.25	85.90
1958	87.90	89.87	89.80	89.34	88.45	86.82	88.91	85.07	86.98	80.02	90.93	91.59	87.05
1959	93.14	92.00	94.42	93.99	93.73	92.06	92.79	92.08	91.75	92.88	93.33	95.65	93.05
1960	95.08	93.25	95.17	95.29	94.40	94.82	95.98	92.60	93.52	94.22	94.01	96.14	101.58
A—Clay Belt													
1956	71.48	70.88	71.90	70.52	71.55	71.20	71.07	71.23	71.74	71.69	72.46	73.42	70.10
1957	74.53	74.13	74.27	74.38	74.88	74.90	76.19	74.16	73.77	74.06	75.87	75.77	72.00
1958	75.58	76.46	77.35	76.73	76.51	73.40	74.96	74.42	75.03	75.49	76.10	76.95	73.55
1959	77.08	76.61	77.80	76.97	77.08	75.73	77.08	77.48	75.23	77.34	77.80	79.31	76.49
1960	79.90	77.74	79.57	80.18	78.95	79.58	80.69	78.15	79.81	80.34	80.06	82.30	81.48
B—Nickel Range													
1956	84.18	83.63	83.32	83.53	82.81	83.09	83.64	82.75	82.42	86.62	82.03	88.04	88.25
1957	91.08	88.18	88.34	88.73	88.66	87.34	93.84	92.76	93.04	91.45	92.30	93.78	94.49
1958	82.94	93.70	94.47	88.68	95.19	93.28	94.91	76.32	77.44	35.41	94.56	94.81	56.56
1959	98.73	94.21	98.36	100.37	97.96	98.94	98.07	98.57	98.27	98.28	100.01	100.56	101.16
1960	103.35	102.00	101.46	102.13	102.81	100.90	102.04	102.88	102.08	101.56	102.06	101.89	118.33
C Sault													
1956	91.51	84.44	86.54	90.52	93.25	92.83	88.91	95.41	90.24	93.63	94.53	95.81	91.99
1957	99.00	98.40	94.94	98.07	93.35	97.73	97.95	99.68	99.91	101.48	102.30	105.76	98.47
1958	103.43	105.44	102.58	105.89	98.25	97.97	100.91	101.28	105.28	106.41	106.52	107.07	103.58
1959	108.05	107.75	111.02	109.09	109.44	105.78	107.28	104.70	107.05	107.74	107.24	111.98	107.58
1960	112.06	106.05	110.95	110.46	109.40	113.64	115.94	107.22	109.44	112.05	111.56	117.46	120.59
LAKEHEAD-NORTHWESTERN ONTARIO													
1956	78.00	76.00	76.62	75.69	76.26	77.15	78.79	78.55	78.51	80.07	80.06	81.43	76.91
1957	83.12	81.36	84.19	84.47	78.19	82.67	85.68	85.10	83.04	83.88	84.76	87.07	76.97
1958	84.97	87.58	86.63	83.99	86.78	83.61	82.26	81.02	84.26	89.45	90.18	85.06	78.82
1959	91.43	87.82	90.46	90.77	92.67	91.55	90.54	89.95	91.04	97.35	94.67	93.45	86.93
1960	94.43	89.66	93.99	96.59	97.36	96.04	96.12	97.53	95.00	94.72	93.76	96.20	86.19
TOTAL, ONTARIO													
1956	78.08	76.52	77.13	76.96	77.40	77.34	77.54	77.61	77.65	79.44	79.15	81.47	78.76
1957	84.80	82.53	82.72	83.51	83.25	83.23	85.60	85.13	85.09	85.56	86.98	89.10	84.84
1958	87.77	89.29	89.02	88.77	88.38	86.50	88.32	85.27	87.04	82.36	90.73	90.96	86.65
1959	92.85	91.74	94.04	93.51	93.42	91.60	92.47	91.74	91.55	93.37	93.40	95.22	92.15
1960	95.01	92.91	94.88	95.46	95.13	95.21	96.06	93.27	94.00	94.49	94.07	96.02	98.56

Source: Memoranda supplied by the Dominion Bureau of Statistics.

AVERAGE WEEKLY WAGES AND SALARIES BY INDUSTRY, ONTARIO, 1958 TO 1960

SELECTED URBAN AREAS								
	1958	1959	1960		1958	1959	1960	
	\$	\$	\$		\$	\$	\$	
EASTERN ONTARIO REGION				NIAGARA REGION—Continued				
Ottawa-Hull				St. Catharines ¹				
Manufacturing	73.86	77.94	80.27	Manufacturing	82.78	88.04	90.48	
Pulp and Paper Mills	85.67	88.90	92.36	Pulp and Paper Mills	91.78	95.77	98.26	
Printing, Publishing and Allied Industries	76.32	80.96	82.44	Iron and Steel Products	87.64	94.09	95.76	
Iron and Steel Products	73.27	75.82	70.01	Transportation Equipment	85.41	93.21	95.64	
Construction	67.22	71.96	75.99	Construction	83.52	79.49	80.67	
Trade	52.42	55.53	58.87	Industrial Composite	79.12	83.31	85.57	
Retail	47.16	48.87	51.67					
Finance, Insurance and Real Estate	67.35	69.52	73.07	LAKE ERIE REGION				
Service	46.55	49.05	50.16	London				
Industrial Composite	64.50	67.87	70.47	Manufacturing	70.21	73.06	75.94	
METROPOLITAN REGION				Food and Beverages	67.60	70.15	73.84	
Toronto				Clothing (textile and fur)	49.98	51.58	53.63	
Manufacturing	77.05	78.99	81.32	Paper Products	76.02	79.81	83.10	
Food and Beverages	71.15	73.84	76.14	Printing, Publishing and Allied Industries	79.54	83.00	86.53	
Meat Products	80.12	83.21	85.62	Iron and Steel Products	73.91	77.27	76.69	
Rubber Products	82.41	86.76	88.32	Electrical Apparatus and Supplies	69.26	72.33	73.59	
Textile Products (except clothing)	60.67	63.43	63.92	Construction	73.02	78.91	83.97	
Clothing (textile and fur)	51.83	54.01	54.14	Transportation, Storage, Communication	70.41	74.95	58.19	
Men's Clothing	51.52	54.97	54.16	Retail Trade	51.34	54.66	55.85	
Women's Clothing	54.30	56.46	57.06	Finance, Insurance and Real Estate	64.96	67.58	69.95	
Paper Products (except pulp and paper) ²	72.09	74.17	77.21	Industrial Composite	66.52	69.56	72.07	
Printing, Publishing and Allied Industries	85.24	90.18	93.07					
Iron and Steel Products	82.22	86.26	88.84	LAKE ST. CLAIR REGION				
Transportation Equipment	88.95	87.68	90.00	Windsor				
Non-Ferrous Metal Products	75.68	77.50	79.77	Manufacturing	83.15	90.72	92.61	
Electrical Apparatus and Supplies	78.90	81.73	85.27	Food and Beverages	75.15	78.89	82.75	
Chemical Products	79.82	81.95	85.10	Iron and Steel Products	81.57	86.70	89.67	
Construction	84.89	89.52	93.50	Transportation Equipment	86.34	95.65	97.22	
Building and General Engineering ³	86.56	91.65	96.22	Trade	55.02	57.35	58.79	
Transportation, Storage, Communication	75.97	80.25	83.99	Industrial Composite	77.04	83.30	84.99	
Electric and Motor Transportation ⁴	78.47	81.64	84.14					
Public Utility Operation	92.75	96.99	101.51	UPPER GRAND RIVER REGION				
Trade	67.28	70.68	72.77	Kitchener				
Wholesale	78.91	83.50	87.03	Manufacturing	66.70	71.09	72.67	
Retail	60.57	62.78	64.19	Food and Beverages	71.93	76.79	78.14	
Finance, Insurance and Real Estate	72.04	74.60	76.35	Rubber Products	70.89	77.05	78.16	
Insurance	75.79	78.20	79.69	Leather Products	60.62	62.52	63.35	
Service	54.35	57.33	60.94	Wood Products	61.01	65.06	67.14	
Hotels and Restaurants	40.86	42.47	43.89	Electrical Apparatus and Supplies	61.53	64.38	67.67	
Industrial Composite	73.96	76.57	78.98	Construction	74.37	78.04	81.94	
				Industrial Composite	65.64	69.66	71.74	
NIAGARA REGION				LAKEHEAD-NORTHWESTERN ONTARIO REGION				
Brantford				Fort William-Port Arthur				
Manufacturing	69.31	72.69	74.25	Manufacturing	79.10	82.17	87.48	
Textile Products (except clothing)	63.98	68.48	69.31	Pulp and Paper Mills	87.78	89.89	95.57	
Iron and Steel Products	78.36	81.70	85.51	Transportation Equipment	73.43	78.11	82.87	
Industrial Composite	66.68	69.93	71.39	Transportation, Storage, Communication	76.96	78.96	84.15	
Hamilton				Trade	57.41	59.36	60.50	
Manufacturing	82.54	88.48	91.01	Industrial Composite	71.57	74.35	78.07	
Textile Products (except clothing)	53.92	57.09	58.77					
Clothing (textile and fur)	44.75	47.12	49.09					
Iron and Steel Products	93.48	98.95	100.08					
Electrical Apparatus and Supplies	87.26	90.80	97.33					
Non-Metallic Mineral Products	73.41	76.23	79.56					
Construction	81.01	87.97	92.35					
Transportation, Storage, Communication	73.52	77.92	80.17					
Retail Trade	53.64	55.39	56.36					
Industrial Composite	76.41	81.75	84.01					

¹Includes paper boxes and bags; roofing papers; miscellaneous paper products.

²Building includes buildings and structures; special trade contractors. General engineering includes other construction, other than highways, bridges and streets.

³Electric and motor transportation includes interurban bus and coach transportation; urban and suburban transportation systems; taxicab; truck transportation; services incidental to transportation; other transportation.

⁴Includes Port Colborne and Welland in addition to urban area as defined in 1956 Census.

Source: Dominion Bureau of Statistics, *Employment and Payrolls*.

Prices and Trade

CONSUMER PRICE INDEXES BY MAIN GROUPS, OTTAWA AND TORONTO, 1951 AND 1955 TO 1960

(1949 = 100)

OTTAWA						
	Total	Food	Shelter	Clothing	Household Operation	Other Commodities and Services
1951	115.3	119.4	115.0	110.8	114.8	110.6
1955	117.2	111.0	133.5	111.2	116.5	119.9
1956	119.2	111.9	137.9	111.6	116.2	124.0
1957	123.2	117.6	142.1	111.9	118.4	129.1
1958	125.5	121.2	145.1	111.9	118.9	131.7
1959	126.9	120.0	147.0	113.3	121.1	135.6
1960	128.6	122.2	148.4	114.7	121.8	137.7
1959 January	126.4	120.8	146.8	111.8	120.5	133.3
February	126.1	119.6	146.8	112.1	121.4	133.2
March	125.9	118.6	146.8	113.1	121.2	133.0
April	125.8	117.4	146.9	113.5	121.4	133.9
May	126.0	117.0	146.7	113.4	121.3	135.6
June	126.2	117.3	146.8	112.5	121.4	136.3
July	126.6	118.3	146.8	112.9	121.4	136.2
August	127.2	120.4	146.9	113.1	121.0	136.3
September	127.6	121.4	147.1	112.8	120.9	137.0
October	128.6	123.9	147.3	114.1	121.1	137.0
November	128.6	123.0	147.7	115.0	120.9	137.6
December	128.3	122.0	147.8	114.8	121.2	137.6
1960 January	128.1	121.6	147.9	112.9	121.8	137.5
February	127.6	120.2	147.9	113.8	121.2	137.4
March	127.4	119.0	147.9	114.5	121.3	137.4
April	128.0	120.9	148.1	113.8	121.2	137.6
May	127.7	119.7	148.3	113.8	121.4	137.7
June	128.6	121.5	148.6	114.1	122.5	137.8
July	128.2	120.7	148.7	114.1	122.5	137.6
August	128.3	121.3	148.7	114.2	122.1	137.5
September	129.0	123.0	148.8	115.2	122.2	137.4
October	130.2	126.8	148.7	115.6	122.1	137.4
November	130.2	125.9	148.8	117.0	121.7	138.3
December	130.1	125.3	148.9	116.9	122.0	138.3
TORONTO						
1951	115.4	118.1	119.7	110.8	115.7	109.7
1955	118.8	110.7	146.6	110.1	115.0	118.9
1956	120.6	112.3	148.6	111.2	116.4	121.5
1957	125.2	117.9	150.6	112.2	120.0	128.6
1958	128.6	121.6	153.5	113.2	121.4	134.2
1959	128.9	119.5	153.8	113.2	123.1	136.9
1960	130.4	121.7	153.2	114.1	123.8	139.7
1959 January	128.9	120.5	154.0	112.2	122.4	136.2
February	128.5	119.3	154.0	112.7	122.4	136.1
March	128.2	117.9	154.0	112.6	122.7	136.2
April	127.9	117.1	153.9	112.5	122.9	136.4
May	128.1	117.3	153.9	112.7	123.6	136.0
June	128.5	117.4	153.9	112.2	123.4	137.8
July	128.1	117.7	153.7	113.3	123.5	135.3
August	128.8	119.0	153.9	113.5	122.8	137.0
September	129.4	120.9	153.7	113.6	122.8	136.9
October	130.3	123.8	153.6	113.7	123.4	137.0
November	130.5	122.2	153.6	114.7	123.5	139.0
December	130.1	120.6	153.5	114.5	123.7	139.1
1960 January	129.7	120.3	153.3	113.1	123.6	138.8
February	129.7	119.8	153.3	114.1	123.7	138.8
March	129.2	118.2	153.3	114.3	123.7	138.9
April	129.7	119.8	153.2	114.2	123.8	139.0
May	129.8	119.3	153.3	113.8	124.1	139.8
June	130.2	120.3	153.2	114.2	123.8	140.4
July	130.1	120.4	153.1	113.5	123.6	140.2
August	130.3	121.1	153.1	113.6	123.4	140.2
September	130.7	122.8	153.2	113.5	123.4	139.9
October	132.1	126.6	153.1	114.2	124.1	140.0
November	131.9	125.8	153.1	115.0	123.8	140.3
December	131.8	125.6	152.9	115.1	124.0	140.3

Source: Dominion Bureau of Statistics, Prices and Price Indexes.

ESTIMATED REGIONAL DISTRIBUTION OF RETAIL SALES, ONTARIO, 1951 TO 1959

	1951	1952	1953	1954	1955	1956	1957	1958	1959	% Change 1959/1951
	(Millions of Dollars)									
Eastern Ontario.....	476	503	532	541	595	634	665	699	733	54.0
Lake Ontario.....	212	225	235	237	259	275	285	299	314	48.1
Metropolitan.....	1,431	1,530	1,647	1,692	1,872	2,019	2,089	2,225	2,334	63.1
Niagara.....	528	564	589	578	633	686	702	711	746	41.3
Lake Erie.....	281	283	296	294	318	342	339	367	385	37.0
Lake St. Clair.....	325	345	357	344	385	405	396	403	422	29.8
Upper Grand River.....	256	269	278	273	302	316	326	342	359	40.2
Georgian Bay.....	209	221	226	218	242	261	264	285	299	43.1
Northeastern Ontario.....	280	302	310	312	347	383	409	413	433	54.6
Lakehead-Northwestern Ontario.....	132	142	146	146	162	178	188	191	200	51.5
TOTAL, ONTARIO.....	4,130	4,384	4,616	4,635	5,115	5,499	5,663	5,934	6,225	50.7

Note: All estimates have been revised on the basis of new personal disposable income data.

Source: Regional distribution estimated by the Ontario Department of Economics; Dominion Bureau of Statistics, *Retail Sales*.

Personal Income

All Regions of the Province experienced high levels of personal income in 1959. As in the past, the Metropolitan Region accounted for the major share of Provincial income—some \$4.3 billion or more than 41 per cent of the total. It was followed in turn by the Niagara Region with \$1.3 billion and Eastern Ontario which reached \$1.1

billion. In 1959 each region recorded an increase over the preceding year and the total for the Province climbed by 6.9 per cent. During the period 1951 to 1959, the growth of personal income in the Regions varied between 37 and 87 per cent. Ontario as a whole experienced an increase of nearly 73 per cent.

ESTIMATED REGIONAL DISTRIBUTION OF PERSONAL INCOME, ONTARIO, 1951 TO 1959

	1951	1952	1953	1954	1955	1956	1957	1958	1959	% Change 1959/1951
	(Millions of Dollars)									
Eastern Ontario.....	594	659	710	752	798	859	969	1,036	1,108	86.5
Lake Ontario.....	239	269	282	293	313	336	372	397	425	77.8
Metropolitan.....	2,333	2,578	2,836	3,018	3,224	3,494	3,769	4,066	4,348	86.4
Niagara.....	875	982	1,030	1,008	1,065	1,178	1,267	1,250	1,337	52.8
Lake Erie.....	407	420	446	447	462	508	511	585	626	53.8
Lake St. Clair.....	493	545	571	538	601	635	628	632	676	37.1
Upper Grand River.....	356	389	406	408	438	459	503	539	576	61.8
Georgian Bay.....	205	230	237	229	249	277	295	334	357	74.1
Northeastern Ontario.....	400	458	467	478	522	595	692	683	730	82.5
Lakehead-Northwestern Ontario.....	191	219	224	226	246	276	316	315	337	76.4
TOTAL, ONTARIO.....	6,093	6,749	7,209	7,397	7,918	8,617	9,322	9,837	10,520	72.7

Estimated per capita personal income in all regions established new records in 1959. It ranged from an estimated \$2,266 in the Metropolitan Region to \$1,127 for the Georgian Bay Region. The Province as a whole reached \$1,767. During 1959 alone, Ontario's personal per capita income increased by more than four per cent.

Over the longer period, 1951 to 1959, the increase varied from a high of 50.3 per cent for the Georgian Bay Region to a low of 10.7 per cent for the Lake St. Clair Region. In all, six of the economic regions have exceeded the growth of 33.4 per cent experienced by the Province in per capital personal income during the past eight years.

ESTIMATED REGIONAL DISTRIBUTION OF PER CAPITA PERSONAL INCOME, ONTARIO, 1951 TO 1959

	1951	1952	1953	1954	1955	1956	1957	1958	1959	% Change 1959/1951
	\$									
Eastern Ontario.....	1,004	1,084	1,131	1,167	1,203	1,270	1,387	1,444	1,506	50.0
Lake Ontario.....	880	969	984	988	1,043	1,103	1,188	1,239	1,294	47.0
Metropolitan.....	1,711	1,777	1,876	1,910	1,969	2,055	2,102	2,173	2,266	32.4
Niagara.....	1,520	1,628	1,654	1,564	1,605	1,728	1,783	1,702	1,774	16.7
Lake Erie.....	1,275	1,309	1,347	1,304	1,310	1,406	1,373	1,535	1,602	25.6
Lake St. Clair.....	1,328	1,405	1,444	1,315	1,445	1,504	1,439	1,409	1,470	10.7
Upper Grand River.....	1,207	1,270	1,304	1,287	1,342	1,386	1,477	1,548	1,613	33.6
Georgian Bay.....	750	828	842	799	844	927	969	1,082	1,127	50.3
Northeastern Ontario.....	1,082	1,196	1,181	1,168	1,239	1,375	1,541	1,475	1,537	42.1
Lakehead-Northwestern Ontario.....	1,146	1,270	1,259	1,228	1,297	1,412	1,552	1,498	1,562	36.3
TOTAL, ONTARIO.....	1,325	1,410	1,459	1,446	1,504	1,594	1,658	1,695	1,767	33.4

Personal disposable income also recorded new gains for every region during 1959, averaging six per cent throughout the Province. The increases in personal disposable income since 1951 have ranged from 34 per

cent for the Lake St. Clair Region to 84 per cent for the Metropolitan Region. Over this same period, six of the regions exceeded the 69.3 per cent increase in disposable income recorded for the whole of Ontario.

ESTIMATED REGIONAL DISTRIBUTION OF PERSONAL DISPOSABLE INCOME, ONTARIO, 1951 TO 1959

	1951	1952	1953	1954	1955	1956	1957	1958	1959	% Change 1959/1951
	(Millions of Dollars)									
Eastern Ontario.....	553	607	652	691	735	784	881	952	1,007	82.1
Lake Ontario.....	227	253	264	274	293	311	344	371	393	73.1
Metropolitan.....	2,103	2,288	2,524	2,686	2,879	3,089	3,335	3,655	3,868	83.9
Niagara.....	811	896	938	921	976	1,067	1,143	1,150	1,217	50.1
Lake Erie.....	382	391	411	415	429	464	470	543	575	50.5
Lake St. Clair.....	461	504	526	497	556	582	574	585	619	34.3
Upper Grand River.....	335	361	376	377	406	421	462	501	530	58.2
Georgian Bay.....	196	218	223	216	235	258	275	314	332	69.4
Northeastern Ontario.....	374	424	429	442	482	545	630	633	670	79.1
Lakehead-Northwestern Ontario.....	179	202	207	210	228	253	288	290	307	71.5
TOTAL, ONTARIO.....	5,621	6,144	6,550	6,729	7,219	7,774	8,402	8,994	9,518	69.3

Note: All regional distributions have been estimated by the Ontario Department of Economics.

ESTIMATED REGIONAL DISTRIBUTION OF SALARIES, WAGES AND SUPPLEMENTARY LABOUR INCOME¹, ONTARIO, 1957 TO 1959

	1957	1958	1959	1959 Per Cent Distribution
	(Millions of Dollars)			
EASTERN ONTARIO.....	702.4	729.1	784.9	10.5
A—Ottawa Valley.....	488.9	520.7	560.6	7.5
B—Upper St. Lawrence.....	213.5	208.4	224.3	3.0
LAKE ONTARIO.....	248.5	258.6	278.4	3.7
METROPOLITAN.....	2,766.8	2,932.7	3,157.2	42.3
NIAGARA.....	943.5	916.0	986.1	13.2
A—Burlington.....	581.2	564.6	607.8	8.1
B—Niagara.....	362.3	351.4	378.3	5.1
LAKE ERIE.....	324.3	351.0	377.9	5.1
LAKE ST. CLAIR.....	446.1	438.0	471.5	6.3
A—Border.....	348.0	334.7	360.4	4.8
B—Lambton.....	98.1	103.3	111.1	1.5
UPPER GRAND RIVER.....	327.4	336.5	362.2	4.9
GEORGIAN BAY.....	178.1	197.1	212.2	2.8
A—Blue Water.....	138.5	158.5	170.6	2.3
B—Highlands.....	39.6	38.6	41.6	0.5
NORTHEASTERN ONTARIO.....	546.8	532.7	573.5	7.7
A—Clay Belt.....	202.8	200.8	216.2	2.9
B—Nickel Range.....	201.4	167.5	180.4	2.4
C—Sault.....	142.6	164.4	176.9	2.4
LAKEHEAD-NORTHWESTERN ONTARIO.....	247.1	244.3	263.1	3.5
TOTAL, ONTARIO.....	6,731.0	6,936.0	7,467.0	100.0

¹Includes employer and employee contributions to social insurance and government pension funds.

Source: Regional distribution estimated by the Ontario Department of Economics; National Revenue, *Taxation Statistics*.

Capital Investment

Capital Investment In Manufacturing In Metropolitan Areas

A gross capital formation of about \$250.0 million in 1960 was made for the manufacturing industries of the five leading metropolitan centres of Ontario: Toronto, Hamilton, Windsor, London and Ottawa. This level of activity, one of the highest on record, is nearly 16 per cent

higher than the year before. It also accounts for more than one-half of all programs of this nature planned for the entire Province.

Hamilton's total capital and repair investment in manufacturing reached \$179.2 million, 23 per cent higher than in 1959 and more than 75 per cent above the level in 1958. This represents a post-war record. Over the past

NEW CAPITAL AND REPAIR INVESTMENT IN MANUFACTURING, ONTARIO, 1956 TO 1960

SELECTED METROPOLITAN AREAS									
	New Capital Investment			Repair Investment			Capital and Repair Investment		
	Total	Construction	Machinery and Equip.	Total	Construction	Machinery and Equip.	Total	Construction	Machinery and Equip.
(Millions of Dollars)									
Hamilton									
1956	71.7	8.3	63.4	52.6	5.6	47.0	124.3	13.9	110.4
1957	76.3	14.1	62.2	56.0	5.7	50.3	132.3	19.8	112.5
1958	54.1	14.7	39.4	45.9	5.3	40.6	100.0	20.0	80.0
1959	79.2	16.4	62.8	66.5	7.1	59.4	145.7	23.5	122.2
1960	113.5	16.7	96.8	65.7	6.5	59.2	179.2	23.2	156.0
Toronto									
1956	101.2	35.8	65.4	47.2	9.2	38.0	148.4	45.0	103.4
1957	122.2	48.2	74.0	51.3	9.2	42.1	173.5	57.4	116.1
1958	100.5	32.3	68.2	48.5	9.7	38.8	149.0	42.0	107.0
1959	95.7	27.6	68.1	50.1	9.7	40.4	145.8	37.3	108.5
1960	98.9	34.3	64.6	47.9	9.4	38.5	146.8	43.7	103.1
Windsor									
1956	28.2	4.4	23.8	15.7	2.1	13.6	43.9	6.5	37.4
1957	20.0	4.4	15.6	14.9	2.1	12.8	34.9	6.5	28.4
1958	10.2	4.8	5.4	11.0	1.5	9.5	21.2	6.3	14.9
1959	18.1	4.5	13.6	14.6	1.8	12.8	32.7	6.3	26.4
1960	14.5	2.1	12.4	12.4	1.6	10.8	26.9	3.7	23.2
Ottawa									
1956	10.0	2.5	7.5	9.4	1.0	8.4	19.4	3.5	15.9
1957	9.6	2.7	6.9	8.2	1.1	7.1	17.8	3.8	14.0
1958	11.8	2.3	9.5	8.5	1.0	7.5	20.3	3.3	17.0
1959	10.3	1.4	8.9	9.3	1.0	8.3	19.6	2.4	17.2
1960	11.4	3.0	8.4	7.5	0.8	6.7	18.9	3.8	15.1
London									
1956	9.1	3.1	6.0	3.9	0.7	3.2	13.0	3.8	9.2
1957	14.3	6.2	8.1	4.4	0.8	3.6	18.7	7.0	11.7
1958	9.1	2.1	7.0	4.1	0.8	3.3	13.2	2.9	10.3
1959	12.5	5.0	7.5	4.8	0.8	4.0	17.3	5.8	11.5
1960	11.7	4.1	7.6	5.1	0.8	4.3	16.8	4.9	11.9

Note: Actual expenditures 1956 to 1959, preliminary actual 1960. The area covered for each city is the 1951 Census Metropolitan Area.
Source: Department of Trade and Commerce, *Public and Private Investment in Canada (Outlook and Regional Estimates)*.

higher than actual new investment in 1959 for these communities, according to the annual survey of investment intentions. When repair expenditures are considered in addition to new capital investment, an aggregate outlay of about \$388.6 million was made in 1960. This grand total of spending on plant and facilities is almost eight per cent

14 years, new capital investment and repair expenditures in Hamilton have increased more, both in absolute terms and proportionately, than in any of the other four metropolitan areas. The latest year's increase is owing wholly to increased new investment, which is about 43 per cent greater than in 1959 and more than double that of 1958.

Hamilton, however, has the Province's largest repair expenditures aggregate, larger than Toronto's for four out of the past five years.

Toronto is the second largest centre of the five in terms of combined new investment and repair spending. Its program for 1960 was \$146.8 million, slightly more than in 1959. Toronto usually has the largest new capital expenditures of the five centres but in 1960 was superseded by Hamilton.

Windsor, in third place as to total expenditures, reduced its level of activity in expansion and repair of plant and facilities from the average of recent years. In 1960, expenditures of \$26.9 million were 18 per cent less than the year before. Both capital and repair expenditures declined from the levels in 1959 by 20 per cent and 15 per cent, respectively.

Ottawa's capital and repair expenditures in 1960 were \$18.9 million, down 3.6 per cent from the year before. Ottawa, because of its sizable existing industries, is in fourth place. Separately, new capital investment expenditures increased by 10.7 per cent in 1960 over the previous year, but repair expenditures declined by 19.4 per cent. It should be borne in mind, however, that these Ottawa statistics include some portions of the metropolitan area located in Quebec.

London, with total capital and repair expenditures of \$16.8 million in 1960, is in fifth place; expenditures declined three per cent from the previous year. The reason for the drop is found in new capital investment which declined by 6.4 per cent. Repair expenditures rose for the third consecutive year by 6.3 per cent.

The Predominance of Capital Expenditures

Capital expenditures, the measure of expansion in the stock of plant and facilities, bulk larger than repair expenditures in the five centres for 1960. If capital expenditures alone are considered as a proportion of total capital and repair expenditures in the five centres, they range from 69.6 per cent for London to 53.9 per cent for Windsor. In between are Toronto, 67.4 per cent; Hamilton, 63.3 per cent; and Ottawa, 60.3 per cent. In these five centres taken together, manufacturers' capital expenditures accounted for 64.3 per cent of all outlays on plant and facilities in 1960, as compared with 62.2 per cent for the 1956-59 period.

The Predominance of Machinery Expenditures

The character of industrial expansion influences the proportion of new capital investment that goes into construction as distinguished from machinery and equipment. A low percentage of new investment devoted to construction tends to be associated with expansion by types of industry involving heavy outlays on machinery and equipment or with the re-equipping, or more intensive use, of existing factory space as distinct from construction of new factory space. London had the highest proportion of 1960 capital investment funds earmarked for construction purposes—35.0 per cent. The lowest proportion was spent in Windsor—14.5 per cent. Proportions of new investment expenditures in manufacturing devoted to construction in other centres were: Hamilton, 14.7 per cent; Ottawa, 26.3 per cent; and Toronto, 34.7 per cent.

Natural Resource Industries

Agriculture

The leading components of farm cash income in the Province in 1959 were livestock and poultry (46 per cent), field crops (24 per cent) and dairy products (20 per cent). Principally on this basis, three large sectors can be indicated in the Province in each of which one of these three main components plays a significant role. In the Upper Grand River-Georgian Bay area, livestock, livestock products and poultry are the chief sources of farm income. The sector comprising the Lake St. Clair, Lake Erie and Niagara regions stands out for its great diversification in agricultural production and specialization in cash field crops such as tobacco, vegetables and fruits. Thirdly, the dairy sector, consisting of the Eastern, Lake Ontario and Metropolitan regions, depends largely on

the production of cheese, butter and fluid milk as the leading farm income source. In the following paragraphs the main features of agriculture in the 10 regions will be examined.

In the Province as a whole, the number of cattle in 1960 showed an increase over 1951 of 24 per cent. Eastern Ontario continued to have the largest number of cattle in Ontario (581,640), and the second largest number of sheep on farms (65,300). The Region is noted for the production of a great variety of dairy products. It is the largest producer in Ontario of cheddar cheese, 41.8 million pounds in 1960, nearly two-thirds of the Province's total output. Eastern Ontario is also an important producer of creamery butter and fluid milk for markets in Ottawa and Montreal. Although in most

parts of the Region dairying ranks first, beef cattle, sheep and swine are leading income producers in Lanark and Renfrew counties. Prominent field crops in the Region are oats, spring wheat and buckwheat. Vegetables are important in a small area near Ottawa while apples and raspberries are grown near the St. Lawrence River. The Region has the largest number of horses on farms (25,600), over one-quarter of Ontario's horse population.

The Lake Ontario Region is the Province's second largest producer of cheddar cheese (15.2 million pounds in 1960). In the southern part of the Region the production of creamery butter is an important source of income. The somewhat milder climate and loamy soils in the southern section lend themselves also to the production of apples, raspberries, strawberries and crops such as sweet corn, tomatoes and peas. Sheep raising is important, particularly in the northern sector of the Region.

In the Metropolitan Region, dairying is the major form of agriculture. Toronto and Oshawa provide ready markets for fluid milk. In 1960, dairies in these two cities purchased 11 per cent (703 million pounds) of all milk produced by Ontario farmers. Vegetables are extensively grown in the Holland Marsh area (Bradford), north of Toronto. In the area bordering Lake Ontario, apples, strawberries, tomatoes, sweet corn and other special crops are grown. The Region is noted for its high poultry production and has the largest number of turkeys and ducks on farms.

The Niagara Region is principally known for its fruits and vegetables. This Region produces most of the peaches and grapes in Canada. Other fruits, such as cherries, apples, pears, plums and many varieties of berries are also widely grown. The largest proportion of the grape crop is used in the Province's twelve wineries. The Ontario wine industry, mainly located in the Niagara Peninsula, is by far the largest in the country. The extensive and varied fruit production of the Region has also led to the establishment of a significant fruit preparation industry engaged in the canning, preserving and freezing of a great variety of fruits. Vegetables and canning crops such as sweet corn, beans, peas and tomatoes are also grown. Tobacco is an important crop in Brant County.

The Lake Erie Region is primarily important for its tobacco production. Nearly 80 per cent of Canada's tobacco crop is grown in this area, mainly in Norfolk County which produces over 59 per cent of the Region's tobacco output. Apples and pears are extensively grown in the London district. Fluid milk and cheese production are important in Oxford and Middlesex counties. These

two counties also have the highest oats production in the Province.

Farms in the Lake St. Clair Region are outstanding in the development of a great variety of cash crops. The Region produces 90 per cent of Ontario's soy bean crop and 56 per cent of the Province's husking corn, mainly in Kent and Essex counties. Sugar beet production is important in Kent County (Chatham) and early vegetables in Essex County (Leamington). Tobacco and canning crops such as peas, beans and tomatoes are other products grown. The Lake St. Clair Region is the Province's second soft fruit growing area with peaches as the leading species. Apples, pears and plums are also grown. A number of farms in the Region maintain large flocks of poultry, particularly turkeys and ducks.

The Upper Grand River Region is the outstanding mixed farming area of the Province. Farm income is largely received from livestock and livestock products. Cattle and hogs are the leading items. The Region has the largest swine population in the Province (465,600). It also leads all other regions in the production of creamery butter (25.1 million pounds in 1960), which is centred in Perth and Wellington counties. The Region has nearly one-quarter of the Province's hens and chickens and in 1959 also showed the largest increase (645 per cent) over 1951 in the number of turkeys on farms. Vegetables are a leading product in Huron County. Other important crops are barley, flax, field roots and dry beans.

The Georgian Bay Region has the largest sheep population (84,800) and the largest number of beef cattle in the Province (383,670). Consequently, the Region is known for its production of beef and mutton as well as pork. Butter production is important in Bruce and Grey counties. The principal field crops are oats, barley, mixed grains and flax. In Simcoe County, dry peas and potatoes are a significant source of income. The Beaver Valley, near the south shore of Georgian Bay (Thornbury), is famous for its apples.

Although agriculture is relatively less important in the Northeastern and Northwestern Ontario regions, it is expanding gradually with the increasing demands for agricultural products by the growing mining and industrial centres. The principal agricultural activity is raising livestock. The Algoma and Timiskaming districts and Manitoulin Island are known for their beef cattle. In suitable areas adjacent to the large cities are well-developed dairy farms, notably near Sudbury and the Lakehead. The main field crops in the two regions are hay, oats and potatoes.

NUMBER OF LIVESTOCK ON FARMS, ONTARIO, JUNE 1, 1951 AND 1960

COUNTIES AND REGIONS						
		Horses	Cattle		Swine	Sheep
			Total	Milk		
EASTERN ONTARIO						
A—Ottawa Valley						
Carleton.....	1951	7,100	71,000	46,600	21,700	6,900
	1960	3,000	80,490	46,300	14,600	11,500
Lanark.....	1951	5,000	48,000	25,400	16,600	14,500
	1960	2,900	55,890	24,700	19,200	17,000
Prescott.....	1951	5,400	39,800	28,700	25,100	500
	1960	2,100	49,780	36,000	12,500	1,200
Renfrew.....	1951	7,800	66,900	31,400	21,800	18,800
	1960	3,200	81,300	31,800	22,000	16,500
Russell.....	1951	4,200	35,400	26,200	18,700	700
	1960	1,900	44,160	31,400	11,800	1,000
Sub-total.....	1951	29,500	261,100	158,300	103,900	41,400
	1960	13,100	311,620	170,200	80,100	47,200
B—Upper St. Lawrence						
Dundas.....	1951	4,500	39,500	30,000	18,700	500
	1960	1,800	48,830	34,200	17,500	600
Frontenac.....	1951	4,900	43,300	29,600	14,300	4,400
	1960	2,300	50,660	28,600	16,600	6,300
Glengarry.....	1951	4,600	37,000	28,300	17,600	700
	1960	2,900	46,880	34,600	11,500	1,000
Grenville.....	1951	3,500	24,100	17,800	10,300	3,700
	1960	1,400	25,700	18,100	7,200	3,400
Leeds.....	1951	5,400	51,800	38,500	12,500	4,700
	1960	2,400	59,260	40,300	11,300	5,600
Stormont.....	1951	3,900	35,100	27,000	16,800	600
	1960	1,700	38,690	29,100	9,300	1,200
Sub-total.....	1951	26,800	230,800	171,200	90,200	14,600
	1960	12,500	270,020	184,900	73,400	18,100
TOTAL, EASTERN ONTARIO.....	1951	56,300	491,900	329,500	194,100	56,000
	1960	25,600	581,640	355,100	153,500	65,300
LAKE ONTARIO						
Durham.....	1951	4,900	41,200	16,900	27,800	9,200
	1960	1,940	51,920	18,300	21,400	9,300
Haliburton.....	1951	700	3,600	1,700	1,200	400
	1960	450	4,490	1,700	1,800	400
Hastings.....	1951	6,800	56,600	37,800	44,500	8,000
	1960	2,330	65,850	36,300	46,600	9,700
Lennox & Addington.....	1951	4,100	35,200	23,000	19,500	4,400
	1960	1,900	38,500	21,300	15,600	6,100
Northumberland.....	1951	5,900	47,800	28,800	35,200	5,400
	1960	1,860	54,570	29,400	28,700	4,800
Peterborough.....	1951	4,400	37,100	19,600	18,500	5,500
	1960	1,770	42,100	16,900	19,300	5,800
Prince Edward.....	1951	2,900	22,800	16,800	16,500	4,700
	1960	1,040	28,160	19,100	20,500	6,600
Victoria.....	1951	4,900	58,900	16,100	30,200	15,900
	1960	1,740	68,290	14,500	25,500	14,800
TOTAL, LAKE ONTARIO.....	1951	34,600	303,200	160,700	193,400	53,500
	1960	13,030	353,880	157,500	179,400	57,500
METROPOLITAN						
Halton.....	1951	2,700	27,300	17,000	16,800	4,700
	1960	680	30,890	16,800	19,100	5,800
Ontario.....	1951	5,900	66,300	31,500	50,700	15,800
	1960	2,100	78,800	37,700	36,700	14,300
Peel.....	1951	3,500	41,600	26,200	23,600	5,300
	1960	1,140	48,430	24,500	25,800	5,400
York.....	1951	6,900	61,400	40,100	63,100	10,700
	1960	2,860	65,940	36,200	49,300	12,300
TOTAL, METROPOLITAN.....	1951	19,000	196,600	114,800	154,200	36,500
	1960	6,780	224,060	115,200	130,900	37,800

NUMBER OF LIVESTOCK ON FARMS, ONTARIO, JUNE 1, 1951 AND 1960—Continued

COUNTIES AND REGIONS						
		Horses	Cattle		Swine	Sheep
			Total	Milk		
NIAGARA						
A—Burlington						
Brant	1951	3,700	29,200	19,200	20,400	5,300
	1960	1,100	39,750	20,400	28,300	5,700
Wentworth	1951	3,900	30,000	22,100	25,400	2,200
	1960	1,010	33,480	22,200	31,600	2,400
Sub-total	1951	7,600	59,200	41,300	45,800	7,500
	1960	2,110	73,230	42,600	59,900	8,100
B—Niagara						
Haldimand	1951	3,800	32,600	20,600	22,900	5,200
	1960	860	42,080	24,400	25,200	5,300
Lincoln	1951	2,300	15,400	10,800	12,600	1,800
	1960	580	20,340	13,000	17,300	2,300
Welland	1951	2,200	13,900	10,000	8,600	1,600
	1960	500	18,130	11,000	13,000	1,700
Sub-total	1951	8,300	61,900	41,400	44,100	8,600
	1960	1,940	80,550	48,400	55,500	9,300
TOTAL, NIAGARA	1951	15,900	121,100	82,700	89,900	16,100
	1960	4,050	153,780	91,000	115,400	17,400
LAKE ERIE						
Elgin	1951	5,400	50,400	24,300	35,500	7,700
	1960	2,300	55,880	21,800	53,400	7,700
Middlesex	1951	9,200	116,200	49,400	60,900	13,900
	1960	2,680	140,050	45,700	83,100	12,800
Norfolk	1951	6,400	23,500	16,500	18,300	1,200
	1960	2,570	25,760	15,600	19,800	1,300
Oxford	1951	7,100	84,000	56,600	75,700	4,800
	1960	1,850	107,950	62,900	108,600	4,200
TOTAL, LAKE ERIE	1951	28,100	274,100	146,800	190,400	27,600
	1960	9,410	329,640	146,000	264,900	26,000
LAKE ST. CLAIR						
A—Border						
Essex	1951	3,400	30,200	21,800	30,300	2,100
	1960	700	29,320	16,500	34,100	1,800
Kent	1951	3,800	42,300	14,100	69,900	3,000
	1960	600	58,890	8,500	78,900	3,900
Sub-total	1951	7,200	72,500	35,900	100,200	5,100
	1960	1,300	88,210	25,000	113,000	5,700
B—Lambton						
Lambton	1951	6,800	80,000	27,000	50,300	17,800
	1960	1,740	95,800	26,000	72,100	14,700
Sub-total	1951	6,800	80,000	27,000	50,300	17,800
	1960	1,740	95,800	26,000	72,100	14,700
TOTAL, LAKE ST. CLAIR	1951	14,000	152,500	62,900	150,500	22,900
	1960	3,040	184,010	51,000	185,100	20,400
UPPER GRAND RIVER						
Huron	1951	9,800	132,600	40,100	113,300	8,800
	1960	2,280	178,060	45,200	112,900	9,800
Perth	1951	8,700	107,700	53,300	122,000	5,200
	1960	2,500	129,940	59,100	146,200	4,300
Waterloo	1951	5,900	54,700	31,300	79,400	5,000
	1960	2,900	71,900	33,800	91,600	3,300
Wellington	1951	9,800	96,500	36,000	101,700	13,100
	1960	4,100	128,320	38,900	114,900	13,600
TOTAL, UPPER GRAND RIVER	1951	34,200	391,500	160,700	416,400	32,100
	1960	11,780	508,220	177,000	465,600	31,000
GEORGIAN BAY						
A—Blue Water						
Bruce	1951	9,200	117,300	37,800	85,200	10,500
	1960	3,000	158,760	43,200	100,000	11,900
Dufferin	1951	4,800	47,800	14,600	43,000	11,700
	1960	1,400	65,620	15,200	46,400	9,600
Grey	1951	12,900	127,900	41,000	106,000	32,100
	1960	4,300	171,600	48,800	114,500	33,100
Simcoe	1951	10,400	99,300	44,400	90,700	20,500
	1960	4,000	125,050	45,000	87,900	25,300
Sub-total	1951	37,300	392,300	137,800	324,900	74,800
	1960	12,700	521,030	152,200	348,800	79,900

NUMBER OF LIVESTOCK ON FARMS, ONTARIO, JUNE 1, 1951 AND 1960—Continued

COUNTIES AND REGIONS						
		Horses	Cattle		Swine	Sheep
			Total	Milk		
B—Highlands						
Muskoka	1951	1,100	6,500	3,800	1,900	700
	1960	480	7,180	3,600	1,900	1,200
Parry Sound	1951	2,600	15,900	8,400	5,500	2,600
	1960	1,030	19,160	7,900	4,000	3,700
Sub-total	1951	3,700	22,400	12,200	7,400	3,300
	1960	1,510	26,340	11,500	5,900	4,900
TOTAL, GEORGIAN BAY	1951	41,000	414,700	150,000	332,300	78,100
	1960	14,210	547,370	163,700	354,700	84,800
NORTHEASTERN ONTARIO						
A—Clay Belt						
Cochrane	1951	2,800	13,700	7,900	3,800	2,200
	1960	1,190	19,270	9,600	3,000	2,600
Nipissing	1951	2,200	15,600	9,200	5,300	2,500
	1960	870	22,200	11,100	6,700	2,400
Timiskaming	1951	2,500	20,200	11,300	6,800	7,600
	1960	1,200	24,440	12,000	5,700	8,200
Sub-total	1951	7,500	49,500	28,400	15,900	12,300
	1960	3,260	65,910	32,700	15,400	13,200
B—Nickel Range						
Manitoulin	1951	1,900	19,300	6,000	6,000	14,000
	1960	860	27,780	6,500	4,000	16,300
Sudbury	1951	2,200	13,600	8,300	5,500	600
	1960	910	16,700	7,600	3,600	1,000
Sub-total	1951	4,100	32,900	14,300	11,500	14,600
	1960	1,770	44,480	14,100	7,600	17,300
C—Sault						
Algoma	1951	2,200	14,800	7,500	3,400	3,400
	1960	730	19,300	9,300	2,200	4,800
Sub-total	1951	2,200	14,800	7,500	3,400	3,400
	1960	730	19,300	9,300	2,200	4,800
TOTAL, NORTHEASTERN ONTARIO	1951	13,800	97,200	50,200	30,800	30,300
	1960	5,760	129,690	56,100	25,200	35,300
LAKEHEAD-NORTHWESTERN ONTARIO						
Kenora	1951	600	2,600	1,600	700	200
	1960	240	4,030	2,000	700	1,000
Rainy River	1951	1,600	10,500	5,200	1,600	6,000
	1960	500	16,760	5,700	2,000	7,300
Thunder Bay	1951	1,500	10,000	6,800	1,200	900
	1960	600	14,920	9,700	2,600	1,200
TOTAL, LAKEHEAD-NORTHWESTERN ONTARIO	1951	3,700	23,100	13,600	3,500	7,100
	1960	1,340	35,710	17,400	5,300	9,500
GRAND TOTAL, ONTARIO	1951	260,600	2,465,900	1,271,900	1,755,500	360,200
	1960	95,000	3,048,000	1,330,000	1,880,000	385,000

Source: Memorandum from the Ontario Department of Agriculture; Dominion Bureau of Statistics, *Census of Canada*.

NUMBER OF POULTRY ON FARMS, ONTARIO, JUNE 1, 1951, 1959 AND 1960¹

REGIONS					
		Hens and Chickens	Turkeys	Ducks	Geese
Eastern Ontario.....	1951	2,996,437	93,746	11,377	14,763
	1959	2,562,200	195,600	5,500	12,000
	1960	2,381,000			
Lake Ontario.....	1951	2,519,141	35,828	9,871	16,428
	1959	2,607,900	133,900	5,400	11,250
	1960	2,343,800			
Metropolitan.....	1951	2,334,974	74,113	35,736	14,677
	1959	3,391,000	486,500	41,100	11,450
	1960	3,175,700			
Niagara.....	1951	2,217,674	70,933	16,191	10,907
	1959	3,754,100	336,000	14,000	n.a.
	1960	2,690,200			
Lake St. Clair.....	1951	2,775,306	114,391	34,722	16,059
	1959	3,077,600	482,000	27,300	n.a.
	1960	2,887,700			
Upper Grand River.....	1951	4,593,124	65,130	21,265	21,319
	1959	6,865,200	485,000	12,100	16,000
	1960	6,555,500			
Georgian Bay.....	1951	2,679,119	75,556	13,480	23,454
	1959	3,571,600	236,400	9,880	16,500
	1960	3,256,900			
Northeastern Ontario.....	1951	492,337	28,643	1,228	2,614
	1959	470,500	88,800	1,500	2,750
	1960	444,000			
Northwestern Ontario.....	1951	219,691	2,850	308	753
	1959	285,700	5,900	—	—
	1960	264,900			
TOTAL, ONTARIO.....	1951	23,767,391	666,465	164,961	139,324
	1959	29,500,000	2,649,100	129,080	111,000
	1960	27,600,000	2,200,000	130,000	109,000

-Nil.

n.a. Not available.

¹Regional data for turkeys, ducks and geese not available for 1960.

Source: Ontario Department of Agriculture; *Agricultural Statistics for Ontario and Monthly Crop and Livestock Report*; Dominion Bureau of Statistics, *Census of Canada*.

PRODUCTION OF CREAMERY BUTTER, ONTARIO, 1946 AND 1957 TO 1960

REGIONS					
	1946	1957	1958	1959	1960
	lb.	lb.	lb.	lb.	% of Total
Eastern Ontario.....	9,040,514	13,025,299	16,903,110	15,980,448	15,128,033 17.8
Lake Ontario.....	8,151,619	8,137,064	8,959,083	8,515,110	8,012,282 9.4
Metropolitan.....	5,156,807	4,196,166	4,215,223	4,312,533	4,058,444 4.8
Niagara.....	2,203,530	3,480,843	4,664,604	4,431,101	4,601,108 5.4
Lake Erie.....	4,143,749	6,375,247	6,978,688	5,731,563	4,142,567 4.9
Lake St. Clair.....	4,435,799	2,687,843	2,602,083	2,609,055	2,415,481 2.8
Upper Grand River.....	16,719,861	18,659,297	22,972,711	23,703,183	25,112,134 29.6
Georgian Bay.....	15,153,630	17,459,838	18,818,209	18,530,451	18,257,336 21.5
Northeastern Ontario.....	3,473,490	2,960,361	2,926,126	2,847,897	2,810,957 3.3
Lakehead-Northwestern Ontario	475,239	429,463	448,622	448,824	403,926 0.5
TOTAL, ONTARIO.....	68,954,238	77,411,421	89,488,459	87,110,165	84,942,268 100.0

Source: Ontario Department of Agriculture, *Agricultural Statistics for Ontario and Monthly Dairy Report*.

PRODUCTION OF CHEDDAR CHEESE, ONTARIO, 1946 AND 1957 TO 1960

REGIONS					
	1946	1957	1958	1959	1960
	lb.	lb.	lb.	lb.	% of Total
Eastern Ontario.....	51,361,086	42,650,114	40,732,166	44,813,514	41,781,471 63.1
Lake Ontario.....	21,846,914	13,650,125	13,367,040	14,708,381	15,245,153 23.0
Metropolitan.....	146,150	125,565	52,750	27,397	10,533 *
Niagara.....	67,302	—	—	—	—
Lake Erie.....	11,841,054	3,391,011	4,032,238	3,948,280	3,701,086 5.6
Lake St. Clair.....	53,204	—	—	—	—
Upper Grand River.....	6,107,673	2,342,939	2,625,426	3,765,055	3,861,573 5.8
Georgian Bay.....	1,013,040	958,433	979,390	1,090,032	1,218,714 1.9
Northeastern Ontario.....	1,171,595	155,072	158,986	204,117	383,637 0.6
Lakehead-Northwestern Ontario	131,206	3,455	2,121	1,900	950 *
TOTAL, ONTARIO.....	93,739,224	63,276,714	61,950,117	68,558,676	66,203,117 100.0

-Nil.

*Less than 0.05 per cent.

Source: Ontario Department of Agriculture, *Agricultural Statistics for Ontario and Monthly Dairy Report*.

Forestry and the Forest-Based Industries

Approximately three-quarters of Ontario's land area is covered with forests. About two-thirds of these woodlands are productive. The two northern regions of the Province contain over 60 per cent of our productive forest lands. They are followed in rank by the Georgian Bay, Lake Ontario and Eastern Ontario regions, which also have a substantial forest coverage.

Most of the Province's sawmills have been established near the sources of the raw material they process. Consequently, about one-third of Ontario's sawmills are located in the two northern regions. The Northeastern Ontario Region ranks first with respect to sawmill operations. About one-fifth of the Province's sawmills are in this Region; they account for almost half the total value of Ontario's sawn lumber production. Their location has been largely determined by the proximity of ample sources of raw material. On the other hand, nearness to the main markets for the final products is another important consideration. These two factors have prompted many operators to establish their mills farther to the south. Thus, the Georgian Bay, Lake Ontario and Eastern

Ontario regions together contain half of the Province's sawmills. They have the advantage of being located near the main markets while, at the same time, they are able to obtain timber locally. On average, however, their size is considerably less than that of their counterparts in northern Ontario. Distance to markets and costly transportation largely explain why in the northwest—in spite of extensive forests—the saw-milling industry is not as prominent as in the Northeastern and even the Eastern Ontario regions.

In the pulp and paper industry, the pull of the market also appears to be a significant factor. Of the 41 establishments manufacturing pulp or paper or both, 17 are in the Niagara and Metropolitan regions and six in the Eastern and Lake Ontario regions. The two northern regions, however, account for almost two-thirds of total output of these products. In 1958, the selling value of factory shipments of the Province's pulp and paper mills amounted to approximately \$448 million. Northwestern Ontario's ten mills accounted for \$173 million (39 per cent) of the total and the eight mills in the Northeastern Region for \$117 million (26 per cent).

PRINCIPAL STATISTICS OF THE PULP AND PAPER INDUSTRY, ONTARIO, 1958

REGIONS					
	Establishments	Employees	Salaries and Wages	Cost at Plant of Materials Used	Selling Value of Factory Shipments
	No.	No.	(\$000's)	(\$000's)	(\$000's)
Eastern Ontario.....	3	2,918	12,845	22,611	52,349
Lake Ontario.....	3	443	1,866	4,337	10,306
Metropolitan.....	7	1,570	9,582	13,467	25,044
Niagara.....	10	3,422	16,535	35,259	69,587
Lake Erie.....	—	—	—	—	—
Lake St. Clair.....	—	—	—	—	—
Upper Grand River.....	—	—	—	—	—
Georgian Bay.....	—	—	—	—	—
Northeastern Ontario.....	8	5,129	24,558	47,175	116,941
Lakehead-Northwestern Ontario	10	6,736	32,255	79,123	172,881
TOTAL, ONTARIO.....	41	20,218	97,641	201,972	447,108

PRINCIPAL STATISTICS OF SAWMILL OPERATIONS, ONTARIO, 1958

REGIONS					
	Establishments	Employees	Salaries and Wages	Cost at Plant of Materials Used	Selling Value of Factory Shipments
	No.	No.	(\$000's)	(\$000's)	(\$000's)
Eastern Ontario.....	160	869	1,896	5,258	8,945
Lake Ontario.....	113	496	1,007	2,426	4,221
Metropolitan.....	15	34	82	156	254
Niagara.....	18	47	71	196	406
Lake Erie.....	37	121	196	480	894
Lake St. Clair.....	18	54	81	223	403
Upper Grand River.....	31	177	402	757	1,583
Georgian Bay.....	132	712	1,479	3,160	6,106
Northeastern Ontario.....	171	2,200	6,726	15,680	27,923
Lakehead-Northwestern Ontario	107	476	1,241	5,338	7,505
TOTAL, ONTARIO.....	802	5,186	13,181	33,674	58,240

Commercial Fishing

Ontario's fisheries mainly occur in two regions—the Great Lakes, which are fished almost exclusively in summer—and Northwestern Ontario, where commercial fishing is mainly a winter operation. Lake Erie is by far the most important fishing ground in the Province with a 1959 catch of 31.6 million pounds valued at \$2.5 million—two-thirds of the volume and 45 per cent of the value of production of Ontario fisheries. The Northern Inland Waters followed Lake Erie in quantity and value of fish caught; in 1959, 7.6 million pounds were landed—worth \$1.2 million. Lake Huron proper ranked third in value

and fourth in volume. Lake Ontario was fourth in value and fifth in volume and Lake Superior fifth in value but third in volume. Lake St. Clair and the North Channel of Lake Huron had catches totalling \$192,000.

In 1959, Lake Erie accounted for about 98 per cent of Ontario's perch, 97 per cent of its smelt, and almost one-third of its yellow pickerel. This fishing ground also produced nearly all of the Province's supply of white bass. The Northern Inland Waters were the leading source of yellow pickerel—about 50 per cent of the 1959 Ontario output—and the producer of more than two-thirds of the Province's whitefish. Lake Superior yielded most of Ontario's herring catch.

COMMERCIAL CATCH AND MARKETED VALUE¹ OF FISH, ONTARIO, SELECTED YEARS 1939 TO 1959

FISHERIES DISTRICTS											
		Lake Ontario	Lake Erie	Lake St. Clair	Lake Huron	Georgian Bay	North Channel	Lake Superior	Northern Inland Waters	Southern Inland Waters	Total Catch and Value
1939	(000 lb.)	3,512	14,263	784	2,496	2,989	959	3,307	4,882	655	33,847
	(\$000's)	261	1,093	39	291	394	111	325	460	36	3,010
1946	(000 lb.)	2,059	18,925	493	953	1,292	289	3,589	4,718	679	32,997
	(\$000's)	357	3,475	68	170	373	48	719	1,008	79	6,297
1951	(000 lb.)	2,414	13,143	389	1,473	3,720	541	2,851	5,727	707	30,969
	(\$000's)	476	3,254	68	429	1,538	146	721	1,165	128	7,925
1954	(000 lb.)	1,915	28,914	1,021	1,462	4,291	394	2,891	6,081	711	47,680
	(\$000's)	301	3,832	99	362	1,616	72	635	888	84	7,889
1955	(000 lb.)	1,944	30,284	821	1,262	2,298	243	2,539	5,628	615	45,634
	(\$000's)	352	4,322	87	329	993	63	589	824	72	7,631
1956	(000 lb.)	2,628	44,683	1,028	1,461	1,109	186	2,144	5,877	594	59,710
	(\$000's)	483	6,113	93	323	423	56	438	926	63	8,918
1957	(000 lb.)	1,996	37,103	1,112	989	664	191	2,797	5,764	493	51,109
	(\$000's)	369	5,453	115	326	245	54	387	916	62	7,927
1958	(000 lb.)	2,100	30,751	907	2,025	407	255	2,872	7,315	543	47,175
	(\$000's)	453	5,244	104	487	131	94	423	1,169	75	8,180
1959	(000 lb.)	2,052	31,597	845	2,203	225	171	3,850	7,617	432	48,992
	(\$000's)	442	2,475	115	578	76	77	424	1,226	61	5,474

¹In conformity with the Dominion Bureau of Statistics procedure, value of production (marketed value) in Ontario is obtained by adding 12 1/2 per cent to landed value.
Source: Dominion Bureau of Statistics, *Fisheries Statistics of Canada* and Ontario Department of Lands and Forests.

COMMERCIAL LANDINGS OF FISH BY PRINCIPAL SPECIES, ONTARIO, 1959

FISHERIES DISTRICTS											
	Lake Ontario	Lake Erie	Lake St. Clair	Lake Huron	Georgian Bay	North Channel	Lake Superior	Northern Inland Waters	Southern Inland Waters	Total Catch	Value
	(Thousands of Pounds)										(\$000's)
Yellow Pickerel.....	151	1,384	102	331	62	29	271	2,323	—	4,653	1,475
Perch.....	32	19,606	37	236	3	4	27	19	4	19,968	1,358
Whitefish.....	336	87	—	229	64	54	210	2,204	—	3,184	878
Chub, Tullibee.....	—	—	—	1,082	3	—	117	374	—	1,576	269
White Bass.....	16	1,405	16	3	—	—	—	3	1	1,444	243
Smelt.....	208	6,843	—	—	—	—	2	3	4	7,060	231
Lake Trout.....	1	—	—	—	1	—	238	282	—	522	183
Sturgeon.....	8	4	11	11	3	5	5	114	18	179	161
Herring.....	52	40	—	13	3	1	2,834	5	—	2,948	123
Northern Pike.....	33	1	10	1	6	16	3	923	—	993	107
Carp.....	536	390	434	17	22	8	—	—	112	1,519	90
Others.....	679	1,837	235	280	58	54	143	1,367	293	4,946	356
TOTAL (000 lb.).....	2,052	31,597	845	2,203	225	171	3,850	7,617	432	48,992	
VALUE (\$000's) ¹	442	2,475	115	578	76	77	424	1,226	61		5,474

¹In conformity with the Dominion Bureau of Statistics procedure, value of production (marketed value) in Ontario is obtained by adding 12 1/2 per cent to landed value.
Source: Ontario Department of Lands and Forests.

Trapping and Fur Farming

Beaver, mink and muskrat are by far the most important fur-bearing animals trapped in Ontario. The major portion of our wild pelts comes from Northern Ontario. The Lakehead-Northwestern Ontario Region last year accounted for 41 per cent of the beaver, 27 per cent of the mink and 19 per cent of the muskrat trapped in the

NUMBER OF LICENSED FUR FARMS, 1949, 1958 AND 1959

	REGIONS		
	1949	1958	1959
Eastern Ontario.....	156	22	18
Lake Ontario.....	65	13	12
Metropolitan.....	232	78	76
Niagara.....	120	86	83
Lake Erie.....	96	45	46
Lake St. Clair.....	63	27	28
Upper Grand River.....	162	101	100
Georgian Bay.....	253	100	94
Northeastern Ontario.....	76	12	11
Lakehead-Northwestern Ontario	159	29	27
TOTAL, ONTARIO.....	1,382	513	495

Source: Ontario Department of Lands and Forests, *Annual Report* and memorandum.

Province. Northeastern Ontario's share of total catch was: 27 per cent for beaver, 28 per cent for mink and 10 per cent for muskrat. More than two-thirds of the muskrat catch originates in Southern Ontario; one-third comes from the area west of Lake Simcoe and about 20 per cent from the Lake Ontario Region.

Mink account for approximately 99 per cent of total value of fur ranch production. In 1959 the total number of fur farms in the Province was 495. Ontario's major fur-farming areas are the Upper Grand River Region, with 100 fur farms, followed by the Georgian Bay Region (94 farms) and the Niagara Region (83 farms).

Mineral Production

Ontario's position as the nation's leading province with respect to value of mineral production is largely held by virtue of the rich and abundant metallic ore deposits of the Canadian Shield. The five top-ranking minerals, nickel, uranium, copper, gold and iron ore, accounting for 78 per cent (\$766 million) of the Province's total mineral production in 1960, are found predominantly in the Precambrian rocks of the Shield area of Northern Ontario. Principally on this basis, Ontario can be divided into two sections. Firstly, Northern Ontario, which produces more than four-fifths of the Province's mineral wealth, chiefly metals; secondly, Southern Ontario, which brings forth the remaining 20 per cent, mainly structural materials but also certain metals, non-metallic minerals and fuels.

The mineral-rich Northeastern Ontario Region produced an estimated 73 per cent of the Province's total mineral output in 1959. A large part of this mineral wealth stems from the rich nickel-copper areas near Sudbury, which also contain a number of other minerals such as: cobalt, iron ore, gold, silver, platinum and related metals. Another significant production centre is the

uranium-rich area located near Elliot Lake. Gold is mined mainly in three areas, Porcupine, Larder Lake and Kirkland Lake, all located some 150 air-miles north or northeast of Sudbury. In 1959, mines in the Northeastern Region produced 70 per cent of the free world's nickel, approximately one-third of the world's platinum metals, 74 per cent of Canada's uranium, 47 per cent of its gold and 40 per cent of its copper. Nearly 92 per cent of the nation's cobalt and 79 per cent of the Province's silver production is also mined in the Region. In addition, 37 per cent of Ontario's iron ore is produced near Michipicoten. Other important minerals recovered are asbestos, selenium, quartz, sand and gravel. The two largest nickel-copper mining companies in the world, The International Nickel Company of Canada Limited, and Falconbridge Nickel Mining Limited are located near Sudbury. The world's two largest uranium producers, in terms of daily mill capacity, Rio Algom and Denison, are located in the Elliot Lake-Blind River area. The following table shows the production of main metals in the Region in 1959:

METALLIC MINERAL PRODUCTION		
NORTHEASTERN ONTARIO REGION, 1959 ¹		
	Production	Value
	(000's)	(\$000's)
Cobalt.....lb.	2,998	5,427
Copper.....lb.	318,097	93,671
Gold.....troy oz.	2,072	69,570
Iron Ore.....short tons	2,326	18,080
Nickel.....lb.	345,273	240,342
Platinum.....troy oz.	150	10,952
Related Platinum Metals.....troy oz.	170	5,662
Silver.....troy oz.	7,823	6,869
Uranium.....lb.	22,668	240,584
Total		691,157

¹Preliminary.

In 1959, the Lakehead-Northwestern Region was Ontario's second most important mineral producer. The leading minerals mined in this area, in order of importance, were iron ore, gold, copper and zinc. All of the iron ore is mined at Steep Rock Lake, near Atikokan. As a result of increased production at the Steep Rock Iron Mines and Canadian Charleson, the iron ore output for the Region nearly doubled in 1959. New developments in this area, particularly the commencement of production, in 1960, by the Caland Ore Company and new deposits discovered near Nakina and Red Lake in this Region may well double Ontario's iron ore production in a few years. Red Lake, Ontario's third largest gold mining centre is the principal gold camp in the Region; others are located near Little Longlac, Pickle Crow and Beardmore. Copper and zinc are predominantly mined near Manitouwadge. The relatively new and rapid developments at the Geco and Willroy copper and zinc mines here, have made the Thunder Bay District the first mining area of the Region in recent years. In 1959, the Region produced all of Ontario's zinc output, 52 per cent of the iron ore, 15 per cent of all copper and 22 per cent of the Province's gold production. Over 21 per cent of Ontario's silver is mined in Northwestern Ontario,

mainly near Manitouwadge, as a by-product of the copper-zinc mines. Production of the leading metals in the Region in 1959 is shown below:

METALLIC MINERAL PRODUCTION

LAKEHEAD-NORTHWESTERN ONTARIO REGION 1959 ¹		
	Production (000's)	Value (\$000's)
Copper.....lb.	55,397	16,403
Gold.....troy oz.	595	19,946
Iron Ore.....short tons	3,277	25,271
Lead.....lb.	3,097	329
Silver.....troy oz.	2,133	1,872
Zinc.....lb.	89,963	11,011
Total		74,832

¹Preliminary.

In Southern Ontario, the Metropolitan Region is the Province's leading producer of structural materials, mainly sand, gravel and clays. These materials are used for brick, tile and concrete to build the great industrial, housing and highway projects undertaken in the Region.

The Lake Ontario Region is the Province's third largest producer of metallic minerals, mainly uranium and iron ore. All of the uranium production takes place in the Bancroft area, where, in 1959, nearly nine per cent of Ontario's output of this metal (\$22.3 million) was produced. About 11 per cent (\$5.2 million) of the Province's iron ore was mined near Marmora in 1959. The Region is also known for its production of nepheline syenite used in the glass and ceramics industry. Total value of production for this mineral was \$2,909,000, in 1959. Among the structural materials, cement is the main product, manufactured near Picton and Belleville.

The principal minerals found in the Lake St. Clair Region are salt and natural gas. In 1959, an estimated two-thirds of the nation's salt was produced near Windsor. The major sources of Ontario's natural gas are located in Lambton and Kent counties. Nearly one-fifth of

Ontario's natural gas output was recovered from off-shore wells in Lake Erie. Most of these are located south of Kent County, where 96 per cent of the Lake's off-shore gas production is concentrated. Other minerals in the Region are oil in Lambton County (Moore Township pools) and lime in Essex County.

The Lake Erie Region is chiefly known for its production of cement and lime in Oxford County. Limestone (found near Beachville) is used as a flux in the steel industry. The Region also possesses one of Ontario's largest oil fields, located near Rodney in Elgin County. In recent years, the Rodney oil field has produced an average of 370,000 barrels of petroleum per annum. Natural gas is extracted from pools in Norfolk County. Recently additional gas discoveries have been made in Long Point Bay and in Elgin County.

The Niagara Region is the Province's second largest producer of structural materials. Crushed limestone from the Niagara Escarpment, is the leading product. Gypsum is mined from extensive fields near Hagersville in Haldimand County.

In the Upper Grand River Region, a new salt mine was opened in November, 1959, near Goderich in Huron County. This mine is considered to be the most modern and efficient of its kind in the world.

The Eastern Ontario Region is noted as the location of Canada's only producer of magnesium, which is used as a constituent in alloys for the production of aircraft and missiles. The mine and plant located near Haley, in Renfrew County produced \$2,230,000 of magnesium metal, in 1959. Other minerals mined in the Region are limestone, sand and gravel.

The Georgian Bay Region mineral production consists of the quarrying of sand and gravel in limited quantities. Limestone is obtained from the Blue Mountains in Simcoe County.

GROSS VALUE OF MINERAL PRODUCTION, ONTARIO, 1945 AND 1956 TO 1958

	REGIONS					
	1945 (\$000's)	1956 (\$000's)	1957 (\$000's)	1958 (\$000's)	Per Cent of Total	Per Cent Change 1958/1945 1958/1957
EASTERN ONTARIO.....	2,580	14,670	17,511	11,500	1.4	346 -34
A—Ottawa Valley.....	2,350	9,652	9,934	7,899	1.0	236 -20
B—Upper St. Lawrence.....	230	5,018	7,577	3,601	0.4	1,466 -52
LAKE ONTARIO.....	3,022	20,166	34,679	42,073	5.3	1,292 21
METROPOLITAN.....	3,206	30,099	37,467	46,454	5.9	1,349 24
NIAGARA.....	6,051	20,211	21,913	23,197	2.9	283 6
A—Burlington.....	1,934	8,914	9,093	9,839	1.2	409 8
B—Niagara.....	4,117	11,297	12,820	13,358	1.7	224 4
LAKE ERIE.....	3,014	9,985	14,016	17,861	2.3	493 27
LAKE ST. CLAIR.....	6,904	15,449	17,548	20,215	2.6	193 15
A—Border.....	5,901	11,103	12,558	13,995	1.8	137 11
B—Lambton.....	1,003	4,346	4,990	6,220	0.8	520 25
UPPER GRAND RIVER.....	2,812	14,436	14,057	13,882	1.8	394 -1
GEORGIAN BAY.....	484	3,124	3,184	3,747	0.5	674 18
A—Blue Water.....	476	3,003	2,863	3,649	0.5	667 27
B—Highlands.....	8	121	321	98	*	1,125 -69
NORTHEASTERN ONTARIO.....	179,008	476,223	538,760	544,951	69.0	204 1
A—Clay Belt.....	52,886	82,357	77,258	82,348	10.4	56 7
B—Nickel Range.....	124,004	370,382	374,331	255,126	32.3	106 -32
C—Sault.....	2,118	23,484	87,171	207,477	26.3	9,696 138
LAKEHEAD-NORTHWESTERN ONTARIO	9,464	46,460	49,689	65,722	8.3	594 32
TOTAL, ONTARIO.....	216,545	650,823	748,824	789,602	100.0	265 5

*Less than 0.05 per cent.
Source: Ontario Department of Mines.

GROSS VALUE OF MINERAL PRODUCTION BY CLASSES, ONTARIO, 1958

	REGIONS				
	Metallics	Non-Metallics	Fuels	Structural Materials	Total
	(\$000's)	(\$000's)	(\$000's)	(\$000's)	(\$000's)
EASTERN ONTARIO.....	2,779	9	—	8,712	11,500
A—Ottawa Valley.....	2,779	2	—	5,118	7,899
B—Upper St. Lawrence.....	—	7	—	3,594	3,601
LAKE ONTARIO.....	26,221	2,797	—	13,055	42,073
METROPOLITAN.....	—	125	17	46,312	46,454
NIAGARA.....	—	1,275	501	21,421	23,197
A—Burlington.....	—	—	—	9,839	9,839
B—Niagara.....	—	1,275	501	11,582	13,358
LAKE ERIE.....	—	—	2,038	15,823	17,861
LAKE ST. CLAIR.....	—	8,948	5,978	5,289	20,215
A—Border.....	—	7,383	1,607	5,005	13,995
B—Lambton.....	—	1,565	4,371	284	6,220
UPPER GRAND RIVER.....	—	1,256	64	12,562	13,882
GEORGIAN BAY.....	—	1	—	3,746	3,747
A—Blue Water.....	—	—	—	3,649	3,649
B—Highlands.....	—	1	—	97	98
NORTHEASTERN ONTARIO.....	536,603	5,945	—	2,403	544,951
A—Clay Belt.....	77,264	3,945	—	1,139	82,348
B—Nickel Range.....	252,457	1,813	—	856	255,126
C—Sault.....	206,882	187	—	408	207,477
LAKEHEAD-NORTHWESTERN ONTARIO.....	63,693	—	—	2,029	65,722
TOTAL, ONTARIO.....	629,296	20,356	8,598	131,352	789,602

Source: Ontario Department of Mines.

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958

	COUNTIES AND REGIONS					
	1945		1955		1958	
	Production	Value	Production	Value	Production	Value
		(\$000's)		(\$000's)		(\$000's)
TOTAL, EASTERN ONTARIO REGION						
Metallics.....		1,627		4,669		2,779
Calcium..... lb.	22,720	19	1	1	25,227	31
Magnesium..... lb.	7,358,545	1,607	n.a.	4,669 ²	9,087,362	2,748
Non-Metallics.....		381		3		9
Asbestos..... tons	3	3	—	—	—	—
Corundum..... tons	1,317	130	—	—	—	—
Feldspar..... tons	2,316	26 ³	—	—	—	—
Graphite..... tons	1,910	179	—	—	—	—
Mica..... lb.	2,838,646	22	41,361	1	17,590	1
Mineral Waters..... gals.	8,285	1	3,573	2	2,433	2
Phosphate..... tons	8	*	—	—	—	—
Quartz..... tons	7,421	21	—	—	1	6
Structural Materials.....		572		6,160		8,712
Clay Products..... *	*	133	*	697	*	906
Lime..... tons	4,032	35	9,916	141	12,104	196
Sand and Gravel..... tons	703,372	354	5,233,659	3,246	7,891,574	4,234
Stone:						
Granite and Trap..... tons	717	7	117,621	216	557	8
Limestone..... tons	24,368	29	1,268,025	1,813	2,096,496	3,350
Marble..... tons	91	3	275	10	—	—
Sandstone..... tons	1,000	11	3,333	37	860	17
TOTAL.....		2,580		10,832		11,500

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS						
	1945		1955		1958	
	Production	Value (\$000's)	Production	Value (\$000's)	Production	Value (\$000's)
TOTAL, A—OTTAWA VALLEY						
Metallics.....		1,627		4,669		2,779
Calcium.....lb.	22,720	19	1	1	25,227	31
Magnesium.....lb.	7,358,545	1,607	n.a.	4,669 ²	9,087,362	2,748
Non-Metallics.....		339		3		2
Asbestos.....tons	3	3	—	—	—	—
Corundum.....tons	1,317	130	—	—	—	—
Feldspar.....tons	2,316	25	—	—	—	—
Graphite.....tons	1,910	179	—	—	—	—
Mica.....lb.	116,737	1	41,361	1	17,203	**
Mineral Waters.....gals.	8,285	1	3,573	2	2,433	2
Phosphate.....tons	8	**	—	—	—	—
Structural Materials.....		384		3,546		5,118
Clay Products.....*	*	133	*	697	*	906
Lime.....tons	4,032	35	9,916	141	12,104	196
Sand and Gravel.....tons	511,830	181	2,525,387	1,321	4,329,604	1,904
Stone:						
Limestone.....tons	22,668	24	987,384	1,350	1,257,726	2,095
Sandstone.....tons	1,000	11	3,333	37	860	17
TOTAL.....		2,350		8,218		7,899
A—Ottawa Valley						
Carleton:						
Non-Metallics.....		1		**		—
Mineral Waters.....gals.	6,500	1	1,500	**	—	—
Structural Materials.....		286		2,553		4,164
Clay Products.....*	*	126	*	593	*	804
Sand and Gravel.....tons	402,975	129	1,173,928	635	5,044,007	1,372
Stone:						
Limestone.....tons	20,685	20	965,241	1,288	1,215,424	1,970
Sandstone.....tons	1,000	11	3,333	37	860	17
TOTAL.....		286		2,553		4,164
Lanark:						
Non-Metallics.....		26		1		**
Feldspar.....tons	2,316	25	—	—	—	—
Mica.....lb.	116,737	1	41,361	1	17,203	**
Phosphate.....tons	8	**	—	—	—	—
Structural Materials.....		6		247		109
Lime.....tons	347	5	2,819	70	2,683	70
Sand and Gravel.....tons	2,093	**	516,940	177	171,407	39
Stone:						
Limestone.....tons	283	**	122	**	71	**
TOTAL.....		32		248		110
Prescott:						
Structural Materials.....		—		16		63
Stone:						
Limestone.....tons	—	—	8,564	16	33,395	63
TOTAL.....		—		16		63
Renfrew:						
Metallics.....		1,627		4,669		2,779
Calcium.....lb.	22,720	19	1	1	25,227	31
Magnesium.....lb.	7,358,545	1,607	n.a.	4,669 ²	9,087,362	2,748
Non-Metallics.....		312		—		—
Asbestos.....tons	3	3	—	—	—	—
Corundum.....tons	1,317	130	—	—	—	—
Graphite.....tons	1,910	179	—	—	—	—
Structural Materials.....		93		730		782
Clay Products.....*	*	7	*	104	*	102
Lime.....tons	3,685	30	7,097	71	9,421	126
Sand and Gravel.....tons	106,762	52	834,107	509	1,113,640	493
Stone:						
Limestone.....tons	1,700	4	13,457	46	8,836	62
TOTAL.....		2,031		5,398		3,561

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$000's)	Production	Value (\$000's)	Production	Value (\$000's)
A—Ottawa Valley—Continued						
Russell:						
Non-Metallics.....		**		2		2
Mineral Waters..... gals.	1,785	**	2,073	2	2,433	2
Structural Materials.....		—		**		**
Sand and Gravel..... tons	—	—	412	**	550	**
TOTAL.....		**		2		2
TOTAL, B—UPPER ST. LAWRENCE						
Non-Metallics.....		42		—		6
Feldspar..... tons	—	1 ³	—	—	—	—
Mica..... lb.	2,721,909	21	—	—	387	**
Quartz..... tons	7,421	21	—	—	1	6
Structural Materials.....		188		2,614		3,594
Sand and Gravel..... tons	191,542	173	2,708,272	1,926	3,561,970	2,330
Stone:						
Granite and Trap..... tons	717	7	117,621	216	557	8
Limestone..... tons	1,700	5	280,641	463	838,770	1,255
Marble..... tons	91	3	275	10	—	—
TOTAL.....		230		2,614		3,600
B—Upper St. Lawrence						
Dundas:						
Structural Materials.....		**		93		909
Sand and Gravel..... tons	1,046	**	118,423	93	438,703	210
Stone:						
Limestone..... tons	—	—	—	—	428,311	698
TOTAL.....		**		93		909
Frontenac:						
Non-Metallics.....		41		—		**
Feldspar..... tons	—	1 ³	—	—	—	—
Mica..... lb.	2,720,646	20	—	—	387	**
Quartz..... tons	7,421	21	—	—	—	—
Structural Materials.....		34		603		561
Sand and Gravel..... tons	51,287	22	123,571	114	192,442	173
Stone:						
Granite and Trap..... tons	717	7	2,050	27	557	8
Limestone..... tons	1,700	5	280,152	462	306,600	380
TOTAL.....		76		603		561
Glengarry:						
Structural Materials.....		30		195		170
Sand and Gravel..... tons	29,307	30	211,101	195	343,744	170
TOTAL.....		30		195		170
Grenville:						
Structural Materials.....		—		449		381
Sand and Gravel..... tons	—	—	576,666	449	613,104	381
TOTAL.....		—		449		381
Leeds:						
Non-Metallics.....		1		—		6
Mica..... lb.	1,263	1	—	—	—	—
Quartz..... tons	—	—	—	—	1	6
Structural Materials.....		—		300		327
Sand and Gravel..... tons	—	—	267,738	111	243,896	150
Stone:						
Granite and Trap..... tons	—	—	115,571	189	—	—
Limestone..... tons	—	—	489	1	103,859	177
TOTAL.....		1		300		333

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$000's)	Production	Value (\$000's)	Production	Value (\$000's)
B—Upper St. Lawrence—Continued						
Stormont:						
Structural Materials		123		975		1,246
Sand and Gravel..... tons	109,902	120	1,410,773	964	1,730,081	1,246
Stone:						
Marble..... tons	91	3	275	10	—	—
TOTAL		123		975		1,246
TOTAL, LAKE ONTARIO REGION						
Metallics		—		2,899		26,221
Cerium, rare earths..... n.a.	—	—	n.a.	**	—	—
Iron Ore..... short tons	—	—	219,994	2,899	531,026	7,229
Uranium (U ₃ O ₈)..... lb.	—	—	—	—	1,826,149	18,992
Non-Metallics		652		2,324		2,797
Feldspar..... tons	77	1	—	—	—	—
Fluorspar..... tons	7,369	234	730	30	1,256	58
Nepheline Syenite..... tons	61,345	276	146,068	2,100	201,306	2,613
Talc..... tons	12,863	141	14,591	195	8,725	126
Structural Materials		2,371		12,958		13,056
Cement..... bbls.	884,873	1,336	4,032,728	10,160	3,616,366	9,303
Clay Products..... *	*	42	*	93	*	93
Sand and Gravel..... tons	984,933	408	1,046,547	674	2,819,553	1,287
Stone:						
Granite and Trap..... tons	108,143	271	325,541	724	471,528	1,051
Limestone..... tons	241,986	271	845,351	1,059	930,903	1,000
Marble..... tons	5,727	42	33,424	248	33,989	301
Sandstone..... tons	—	—	42	**	769	21
TOTAL		3,022		18,182		42,073
Lake Ontario Region						
Durham:						
Structural Materials.....		—		**		21
Sand and Gravel..... tons	—	—	206	**	149,952	21
TOTAL		—		**		21
Haliburton:						
Metallics.....		—		**		10,795
Cerium, rare earths..... n.a.	—	—	n.a.	**	—	—
Uranium (U ₃ O ₈)..... lb.	—	—	—	—	982,856	10,795
Structural Materials.....		20		64		88
Sand and Gravel..... tons	—	—	1,133	**	115,742	17
Stone:						
Marble..... tons	3,600	20	8,641	64	9,942	71
Sandstone..... tons	—	—	42	**	—	—
TOTAL		20		64		10,883
Hastings:						
Metallics		—		2,899		15,426
Iron Ore..... short tons	—	—	219,994	2,899	531,026	7,229
Uranium (U ₃ O ₈)..... lb.	—	—	—	—	843,293	8,197
Non-Metallics		376		225		183
Feldspar..... tons	77	1	—	—	—	—
Fluorspar..... tons	7,369	234	730	30	1,256	58
Talc..... tons	12,863	141	14,591	195	8,725	126
Structural Materials.....		2,055		10,599		8,838
Cement..... bbls.	884,873	1,336	4,032,728	10,160	3,048,732	7,864
Sand and Gravel..... tons	972,374	405	51,488	33	626,925	97
Stone:						
Granite and Trap..... tons	8,918	111	22,487	48	263,637	545
Limestone..... tons	144,795	181	119,891	204	82,680	81
Marble..... tons	2,127	22	22,500	154	24,047	230
Sandstone..... tons	—	—	—	—	769	21
TOTAL		2,431		13,723		24,448

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
Lake Ontario Region—Continued						
Lennox & Addington:						
Structural Materials.....		15		313		235
Clay Products..... *	*	15	*	70	*	86
Sand and Gravel..... tons	—	—	20,595	6	54,294	20
Stone:						
Limestone..... tons	—	—	179,836	207	95,733	129
Marble..... tons	—	—	2,283	31	—	—
TOTAL.....		15		313		235
Northumberland:						
Structural Materials.....		**		506		859
Clay Products..... *	—	—	*	3	*	3
Sand and Gravel..... tons	4,186	**	823,809	503	1,389,700	856
TOTAL.....		**		506		859
Peterborough:						
Non-Metallics.....		276		2,100		2,613
Nepheline Syenite..... tons	61,345	276	146,068	2,100	201,306	2,613
Structural Materials.....		186		817		737
Clay Products..... *	*	25	*	12	—	—
Sand and Gravel..... tons	5,233	1	133,869	129	247,526	231
Stone:						
Granite and Trap..... tons	99,225	160	303,054	676	207,891	506
Limestone..... tons	283	**	—	—	—	—
TOTAL.....		462		2,916		3,351
Prince Edward:						
Structural Materials.....		—		3		1,740
Cement..... bbls.	—	—	—	—	567,634	1,439
Sand and Gravel..... tons	—	—	10,298	3	84,375	22
Stone:						
Limestone..... tons	—	—	—	—	337,563	279
TOTAL.....		—		3		1,740
Victoria:						
Structural Materials.....		93		656		537
Clay Products..... *	*	2	*	8	*	4
Sand and Gravel..... tons	3,140	2	5,149	**	151,039	23
Stone:						
Limestone..... tons	96,908	90	545,624	648	414,927	510
TOTAL.....		93		656		537
TOTAL, METROPOLITAN REGION						
Non-Metallics.....		—		164		125
Quartz..... tons	—	—	13,963	164	10,400	125
Fuels.....		—		—		17
Natural Gas..... M. cu. ft.	—	—	—	—	47,201	17
Structural Materials.....		3,206		26,941		46,312
Cement..... bbls.	—	—	—	—	4,027,326	10,285
Clay Products..... *	*	2,062	*	11,924	*	15,773
Lime..... tons	4,529	46	11,800	202	6,573	117
Sand and Gravel..... tons	1,979,292	1,089	14,935,813	12,562	22,945,810	17,330
Stone:						
Limestone..... tons	283	**	1,245,394	2,021	1,962,777	2,284
Sandstone..... tons	2,680	9	24,195	232	26,219	523
TOTAL.....		3,206		27,104		46,454

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
Metropolitan Region						
Halton:						
Fuels.....		—		—		17
Natural Gas.....M. cu. ft.	—	—	—	—	47,201	17
Structural Materials.....		624		4,419		5,148
Clay Products.....*	*	572	*	1,911	*	1,923
Lime.....tons	4,529	46	11,800	202	6,573	117
Sand and Gravel.....tons	4,186	**	344,970	126	823,504	387
Stone:						
Limestone.....tons	283	**	1,245,394	2,021	1,962,777	2,284
Sandstone.....tons	1,732	5	17,232	159	18,557	437
TOTAL.....		624		4,419		5,166
Ontario:						
Non-Metallics.....		—		164		125
Quartz.....tons	—	—	13,963	164	10,400	125
Structural Materials.....		12		1,095		1,690
Clay Products.....*	*	9	*	50	*	80
Sand and Gravel.....tons	4,186	3	1,644,992	1,045	2,295,228	1,610
TOTAL.....		12		1,259		1,814
Peel:						
Structural Materials.....		938		6,762		24,161
Cement.....bbls.	—	—	—	—	4,027,326	10,285
Clay Products.....*	*	934	*	3,995	*	9,881
Sand and Gravel.....tons	—	—	2,772,221	2,695	5,529,282	3,909
Stone:						
Sandstone.....tons	948	4	6,963	73	7,662	86
TOTAL.....		938		6,762		24,161
York:						
Structural Materials.....		1,633		14,665		15,313
Clay Products.....*	*	547	*	5,968	*	3,889
Sand and Gravel.....tons	1,970,920	1,086	10,173,630	8,696	14,297,796	11,424
TOTAL.....		1,633		14,665		15,313
TOTAL, NIAGARA REGION						
Non-Metallics.....		514		932		1,276
Gypsum.....tons	92,174	386	366,416	808	425,733	1,060
Peat.....tons	8,036	129	4,284	124	6,123	216
Fuels.....		1,661		704		500
Natural Gas.....M. cu. ft.	2,472,290	1,661	1,759,527	704	1,352,254	500
Petroleum.....bbls.	24	**	—	—	—	—
Structural Materials.....		3,876		17,311		21,421
Cement.....bbls.	709,763	1,153	1,301,098	3,603	777,600	2,224
Clay Products.....*	*	409	*	3,354	*	3,610
Lime.....tons	—	—	—	—	185,802	2,136
Sand and Gravel.....tons	1,844,269	1,099	5,057,570	3,468	7,257,742	4,624
Stone:						
Limestone.....tons	1,372,586	1,215	5,990,247	6,886	7,527,021	8,827
TOTAL.....		6,051		18,947		23,197
TOTAL, A—BURLINGTON						
Non-Metallics.....		23		9		—
Peat.....tons	1,125	23	205	9	—	—
Fuels.....		49		6		5
Natural Gas.....M. cu. ft.	72,666 ⁴	49 ⁴	15,130 ⁴	6 ⁴	5	5
Petroleum.....bbls.	24	**	—	—	—	—
Structural Materials.....		1,863		7,677		9,839
Clay Products.....*	*	406	*	2,590	*	2,761
Sand and Gravel.....tons	1,839,036	1,095	4,304,402	2,919	6,266,114	3,934
Stone:						
Limestone.....tons	409,736	362	2,059,550	2,168	2,871,902	3,144
TOTAL.....		1,934		7,693		9,839

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS						
	1945		1955		1958	
	Production	Value (\$000's)	Production	Value (\$000's)	Production	Value (\$000's)
A—Burlington						
Brant:						
Fuels.....		49		6		5
Natural Gas.....M. cu. ft.	72,666	49	15,130	6	5	5
Petroleum.....bbls.	24	**	—	—	—	—
Structural Materials.....		691		2,622		3,181
Clay Products.....*	—	—	*	62	*	95
Sand and Gravel.....tons	1,358,606	691	3,938,837	2,560	5,558,874	3,086
TOTAL.....		<u>740</u>		<u>2,628</u>		<u>3,181</u>
Wentworth:						
Non-Metallics.....		23		9		—
Peat.....tons	1,125	23	205	9	—	—
Fuels.....		5		5		5
Natural Gas.....M. cu. ft.	5	5	5	5		5
Structural Materials.....		1,172		5,056		6,658
Clay Products.....*	*	406	*	2,528	*	2,666
Sand and Gravel.....tons	480,430	403	365,565	359	707,240	848
Stone:						
Limestone.....tons	409,736	362	2,059,550	2,168	2,871,902	3,144
TOTAL.....		<u>1,194</u>		<u>5,065</u>		<u>6,658</u>
TOTAL, B—NIAGARA						
Non-Metallics.....		492		923		1,276
Gypsum.....tons	92,174	386	366,416	808	425,733	1,060
Peat.....tons	6,911	106	4,079	115	6,123	216
Fuels.....		1,612 ²		698 ³		500 ⁷
Natural Gas.....M. cu. ft.	2,399,624 ⁶	1,612 ²	1,744,397 ⁵	698 ³	1,352,254 ⁷	500 ⁷
Structural Materials.....		2,013		9,634		11,582
Cement.....bbls.	709,763	1,153	1,301,098	3,603	777,600	2,224
Clay Products.....*	*	3	*	764	*	849
Lime.....tons	—	—	—	—	185,802	2,136
Sand and Gravel.....tons	5,233	4	753,168	548	991,628	690
Stone:						
Limestone.....tons	962,850	853	3,930,697	4,718	4,655,119	5,683
TOTAL.....		<u>4,117</u>		<u>11,255</u>		<u>13,358</u>
B—Niagara						
Haldimand:						
Non-Metallics.....		386		808		1,060
Gypsum.....tons	92,174	386	366,416	808	425,733	1,060
Fuels.....		1,375 ⁵		525 ⁵		351 ⁹
Natural Gas.....M. cu. ft.	2,046,669 ³	1,375 ⁵	1,312,640 ³	525 ⁵	948,643 ⁹	351 ⁹
Structural Materials.....		412		1,727		1,957
Sand and Gravel.....tons	—	—	1,442	**	179	**
Stone:						
Limestone.....tons	584,569	412	1,772,667	1,726	2,078,580	1,957
TOTAL.....		<u>2,172</u>		<u>3,060</u>		<u>3,368</u>
Lincoln:						
Fuels.....		5		5		5
Natural Gas.....M. cu. ft.	5	5	5	5	5	5
Structural Materials.....		150		2,031		2,678
Clay Products.....*	*	3	*	764	*	849
Stone:						
Limestone.....tons	50,720	147	633,707	1,267	972,896	1,829
TOTAL.....		<u>150</u>		<u>2,031</u>		<u>2,678</u>

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
B—Niagara—Continued						
Welland:						
Non-Metallics.....		106		115		216
Peat.....tons	6,911	106	4,079	115	6,123	216
Fuels.....		237		173		149
Natural Gas.....M. cu. ft.	352,955	237	431,757	173	403,611	149
Structural Materials.....		1,451		5,876		6,947
Cement.....bbls.	709,763	1,153	1,301,098	3,603	777,600	2,224
Lime.....tons	—	—	—	—	185,802	2,136
Sand and Gravel.....tons	5,233	4	751,726	548	991,449	690
Stone:						
Limestone.....tons	327,561	294	1,524,323	1,725	1,603,643	1,897
TOTAL.....		1,795		6,163		7,312
TOTAL, LAKE ERIE REGION						
Fuels.....		405		1,604		2,038
Natural Gas.....M. cu. ft.	545,702	367	1,151,686	461	1,837,467	680
Petroleum.....bbls.	16,021	38	375,531	1,143	402,867	1,358
Structural Materials.....		2,610		6,974		15,823
Cement.....bbls.	—	—	—	—	2,545,680	6,514
Clay Products.....*	*	34	*	273	*	395
Lime.....tons	220,196	1,671	374,328	4,035	451,468	5,413
Sand and Gravel.....tons	722,213	315	4,440,537	1,321	4,511,710	2,061
Stone:						
Limestone.....tons	593,069	589	973,805	1,345	1,001,153	1,439
TOTAL.....		3,014		8,577		17,861
Lake Erie Region						
Elgin:						
Fuels.....		46		1,235		1,226
Natural Gas.....M. cu. ft.	62,212	42	373,175 ¹⁰	149 ¹⁰	324,918 ¹⁰	120 ¹⁰
Petroleum.....bbls.	1,677	4	356,854	1,086	328,259	1,106
Structural Materials.....		3		48		38
Sand and Gravel.....tons	13,606	3	139,018	48	82,378	38
TOTAL.....		48		1,283		1,264
Middlesex:						
Fuels.....		34		57		251
Natural Gas.....M. cu. ft.	—	—	11	11	11	11
Petroleum.....bbls.	14,344	34	18,677	57	74,554	251
Structural Materials.....		21		1,080		1,274
Clay Products.....*	*	5	*	53	*	166
Sand and Gravel.....tons	102,575	16	1,724,850	1,027	2,495,736	1,108
TOTAL.....		55		1,137		1,525
Norfolk:						
Fuels.....		313		292		548
Natural Gas.....M. cu. ft.	466,243	313	730,013	292	1,479,310	547
Petroleum.....bbls.	—	—	—	—	54	**
Structural Materials.....		281		150		589
Sand and Gravel.....tons	519,157	281	228,813	150	720,862	589
TOTAL.....		594		442		1,136
Oxford:						
Fuels.....		12		19		12
Natural Gas.....M. cu. ft.	17,247	12	48,498	19	33,239	12
Structural Materials.....		2,305		5,696		13,922
Cement.....bbls.	—	—	—	—	2,545,680	6,514
Clay Products.....*	*	29	*	220	*	230
Lime.....tons	220,196	1,671	374,328	4,035	451,468	5,413
Sand and Gravel.....tons	86,875	16	2,347,856	96	1,212,734	326
Stone:						
Limestone.....tons	593,069	589	973,805	1,345	1,001,153	1,439
TOTAL.....		2,317		5,715		13,935

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS						
	1945		1955		1958	
	Production	Value (\$000's)	Production	Value (\$000's)	Production	Value (\$000's)
TOTAL, LAKE ST. CLAIR REGION						
Non-Metallics.....		2,292		4,835		8,948
Salt..... tons	513,100	2,292	939,196	4,835	2,046,725	8,948
Fuels.....		3,040		3,633		5,978
Natural Gas..... M. cu. ft.	4,181,978	2,810	7,941,644	3,177	12,738,191	4,713
Petroleum..... bbls.	97,280	230	149,979	456	375,474	1,265
Structural Materials.....		1,571		4,264		5,289
Clay Products..... *	*	295	*	1,070	*	1,143
Lime..... tons	125,760	896	183,207	1,936	221,084	2,321
Sand and Gravel..... tons	363,200	104	1,632,172	812	2,762,393	1,164
Stone:						
Limestone..... tons	334,644	277	512,593	446	558,588	661
TOTAL.....		6,904		12,732		20,215
TOTAL, A—BORDER						
Non-Metallics.....		1,764		3,506		7,383
Salt..... tons	458,698	1,764	673,176	3,506	1,722,664	7,383
Fuels.....		2,593		1,105		1,608
Natural Gas..... M. cu. ft.	3,757,658	2,525	2,651,499	1,061	4,138,734	1,531
Petroleum..... bbls.	28,726	68	14,566	44	22,615	76
Structural Materials.....		1,544		3,970		5,004
Clay Products..... *	*	269	*	947	*	997
Lime..... tons	125,760	896	183,207	1,936	221,084	2,321
Sand and Gravel..... tons	360,060	103	1,302,648	641	2,292,535	1,026
Stone:						
Limestone..... tons	334,644	277	512,593	446	558,044	660
TOTAL.....		5,901		8,580		13,995
A—Border						
Essex:						
Non-Metallics.....		1,764		3,506		7,383
Salt..... tons	458,698	1,764	673,176	3,506	1,722,664	7,383
Fuels.....		18		26		8
Natural Gas..... M. cu. ft.	27,416	18	52,249	21	16,234	6
Petroleum..... bbls.	—	—	1,605	5	459	2
Structural Materials.....		1,236		2,957		3,783
Clay Products..... *	*	31	*	179	*	155
Lime..... tons	120,274	842	177,352	1,901	209,601	2,250
Sand and Gravel..... tons	325,520	86	1,040,059	431	1,899,830	718
Stone:						
Limestone..... tons	334,644	277	512,593	446	558,044	660
TOTAL.....		3,018		6,489		11,173
Kent:						
Fuels.....		2,574		1,079		1,600
Natural Gas..... M. cu. ft.	3,730,242	2,506	2,599,250	1,040	4,122,500	1,525
Petroleum..... bbls.	28,726	68	12,961	39	22,156	75
Structural Materials.....		308		1,012		1,222
Clay Products..... *	*	237	*	768	*	842
Lime..... tons	5,486	54	5,855	35	11,483	71
Sand and Gravel..... tons	34,540	17	262,589	210	392,705	309
TOTAL.....		2,883		2,091		2,822
TOTAL, B—LAMBTON						
Lambton:						
Non-Metallics.....		528		1,329		1,565
Salt..... tons	54,402	528	266,020	1,329	324,061	1,565
Fuels.....		448		2,528		4,371
Natural Gas..... M. cu. ft.	424,320	285	5,290,145	2,116	8,599,457	3,182
Petroleum..... bbls.	68,554	162	135,413	412	352,859	1,189
Structural Materials.....		27		294		284
Clay Products..... *	*	26	*	124	*	147
Sand and Gravel..... tons	3,140	1	329,524	171	469,858	137
Stone:						
Limestone..... tons	—	—	—	—	544	1
TOTAL.....		1,003		4,152		6,220

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
TOTAL, UPPER GRAND RIVER REGION						
Non-Metallics		629		1,010		1,256
Salt..... tons	65,597	629	59,593	1,010	79,758	1,256
Fuels		1		—		64
Natural Gas..... M. cu. ft.	—	—	—	—	172,873	64
Peat..... tons	118	1	—	—	—	—
Structural Materials		2,182		11,981		12,562
Cement..... bbls.	866,360	1,316	2,330,608	5,944	2,748,217	6,869
Clay Products..... *	*	59	*	604	*	535
Lime..... tons	44,105	484	118,994	2,106	132,885	2,462
Sand and Gravel..... tons	765,127	321	7,053,144	3,285	5,662,117	2,668
Stone:						
Limestone..... tons	12,467	2	134,571	41	55,818	28
TOTAL		2,812		12,991		13,882
Upper Grand River						
Huron:						
Non-Metallics.....		629		1,010		1,256
Salt..... tons	65,597	629	59,593	1,010	79,758	1,256
Fuels		—		—		64
Natural Gas..... M. cu. ft.	—	—	—	—	172,873	64
Structural Materials		17		512		628
Clay Products..... *	*	8	—	—	*	10
Sand and Gravel..... tons	71,174	10	1,451,963	512	1,686,838	618
TOTAL		646		1,523		1,948
Perth:						
Fuels		1		—		—
Peat..... tons	118	1	—	—	—	—
Structural Materials		1,328		6,425		7,041
Cement..... bbls.	866,360	1,316	2,330,608	5,944	2,748,217	6,869
Clay Products..... *	—	—	*	20	*	1
Sand and Gravel..... tons	85,828	12	1,304,862	461	652,922	171
TOTAL		1,329		6,425		7,041
Waterloo:						
Structural Materials		165		1,803		2,095
Clay Products..... *	*	42	*	360	*	525
Sand and Gravel..... tons	227,131	123	2,327,261	1,443	2,488,330	1,570
TOTAL		165		1,803		2,095
Wellington:						
Structural Materials		672		3,241		2,798
Clay Products..... *	*	10	*	225	—	—
Lime..... tons	44,105	484	118,994	2,106	132,885	2,462
Sand and Gravel..... tons	380,994	176	1,969,058	868	834,027	308
Stone:						
Limestone..... tons	12,467	2	134,571	41	55,818	28
TOTAL		672		3,241		2,798
TOTAL, GEORGIAN BAY REGION						
Metallics.....	—	—		1		—
Cerium, rare earths..... n.a.	—	—	n.a.	1	—	—
Non-Metallics.....		2		**		1
Feldspar..... tons	417	2	—	—	—	—
Mica..... lb.	—	—	13	**	861	1
Structural Materials		482		2,441		3,746
Clay Products..... *	*	20	*	100	*	163
Lime..... tons	25	1	—	—	—	—
Sand and Gravel..... tons	593,472	271	2,293,639	1,249	4,965,747	2,639
Stone:						
Granite and Trap..... tons	—	—	658	7	998	11
Limestone..... tons	251,337	191	1,242,947	1,085	1,004,885	933
TOTAL		484		2,442		3,747

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS						
	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
TOTAL, A—BLUE WATER						
Structural Materials.....		476		2,302		3,649
Clay Products..... *	*	14	*	73	*	146
Lime..... tons	25	1	—	—	—	—
Sand and Gravel..... tons	593,472	271	2,147,053	1,195	4,795,396	2,570
Stone:						
Limestone..... tons	251,337	191	1,240,500	1,034	1,004,885	933
TOTAL.....		476		2,302		3,649
A—Blue Water						
Bruce:						
Structural Materials.....		12		120		146
Clay Products..... *	*	9	*	53	*	69
Sand and Gravel..... tons	—	—	118,423	54	90,447	45
Stone:						
Limestone..... tons	850	3	1,223	13	3,045	32
TOTAL.....		12		120		146
Dufferin:						
Structural Materials.....		—		48		54
Sand and Gravel..... tons	—	—	247,143	48	297,296	54
TOTAL.....		—		48		54
Grey:						
Structural Materials.....		6		473		762
Clay Products..... *	*	5	*	20	*	19
Lime..... tons	25	1	—	—	—	—
Sand and Gravel..... tons	—	—	870,148	452	1,659,153	715
Stone:						
Limestone..... tons	283	**	—	—	1,034	27
TOTAL.....		6		473		762
Simcoe:						
Structural Materials.....		458		1,661		2,687
Clay Products..... *	—	—	—	—	*	57
Sand and Gravel..... tons	593,472	271	911,339	641	2,748,500	1,755
Stone:						
Limestone..... tons	250,204	188	1,239,277	1,020	1,000,806	874
TOTAL.....		458		1,661		2,687
TOTAL, B—HIGHLANDS						
Metallics.....		—		1		—
Cerium, rare earths..... n.a.	—	—	n.a.	1	—	—
Non-Metallics.....		2		**		1
Feldspar..... tons	417	2	—	—	—	—
Mica..... lb.	—	—	13	**	861	1
Structural Materials.....		5		139		97
Clay Products..... *	*	5	*	27	*	17
Sand and Gravel..... tons	—	—	146,586	54	170,351	69
Stone:						
Granite and Trap..... tons	—	—	658	7	998	11
Limestone..... tons	—	—	2,447	52	—	—
TOTAL.....		8		140		98
B—Highlands						
Muskoka:						
Structural Materials.....		5		121		81
Clay Products..... *	*	5	*	27	*	17
Sand and Gravel..... tons	—	—	66,934	42	132,990	64
Stone:						
Granite and Trap..... tons	—	—	42	**	—	—
Limestone..... tons	—	—	2,447	52	—	—
TOTAL.....		5		121		81

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
B—Highlands—Continued						
Parry Sound:						
Metallics.....		—		1		—
Cerium, rare earths..... n.a.	—	—	n.a.	1	—	—
Non-Metallics.....		2		**		1
Feldspar..... tons	417	2	—	—	—	—
Mica..... lb.	—	—	13	**	861	1
Structural Materials.....		—		19		16
Sand and Gravel..... tons	—	—	79,652	12	37,361	5
Stone:						
Granite and Trap..... tons	—	—	616	7	998	11
TOTAL.....		2		19		16
TOTAL, NORTHEASTERN ONTARIO REGION						
Metallics.....		177,301		426,952		536,603
Bismuth..... lb.	—	—	—	—	18,581	27
Cobalt..... lb.	109,123	90	3,296,270	8,510	2,436,064	4,867
Copper..... lb.	239,457,242	29,772	292,813,108	107,216	216,204,274	54,017
Gold..... troy oz.	1,436,763	55,315	2,010,357	69,398	2,118,647	71,992
Iron Ore..... short tons	570,099	1,963	1,604,776	12,805 ¹²	1,774,342	15,725 ¹²
Lead..... lb.	—	—	3,853,603	554	68,848	5
Nickel..... lb.	245,130,983	61,982	322,322,355	198,489	254,286,784	177,169
Platinum..... troy oz.	208,234	8,017	170,494	14,748	146,092	9,481
Other Platinum Metals..... troy oz.	458,674	18,671	214,252	8,322	154,366	4,840
Selenium..... lb.	168,000	323	94,465	708	90,295	677
Silver..... troy oz.	2,482,153	1,167	5,988,612	5,281	7,643,557	6,635
Tellurium..... lb.	—	—	6,455	11	6,692	11
Tungsten (WO ₃)..... lb.	787	1	—	—	—	—
Uranium (U ₃ O ₈)..... lb.	—	—	n.a.	487	18,143,987	191,158
Zinc..... lb.	—	—	3,095,640	423	—	—
Non-Metallics.....		1,192		5,140		5,945
Arsenious Oxide..... lb.	224,467	12	1,571,787	69	2,323,320	95
Asbestos..... tons	—	—	24,550	3,318	21,650	3,849
Feldspar..... tons	1,047	6	—	—	—	—
Mica..... lb.	64,717	74	—	—	6,100	**
Pyrite, Pyrrhotite..... tons	—	—	—	—	279,422	656
Quartz ¹³ tons	1,157,817	800	1,407,339	869	912,198	536
Silica Brick..... M	1,168	131	3,498	313	1,740	187
Sulphur..... tons	16,847	168	57,100	571	n.a.	623
Structural Materials.....		515		2,853		2,403
Clay Products..... *	*	18	*	62	*	71
Sand and Gravel..... tons	2,386,457	489	7,949,757	2,722	6,210,666	2,303
Stone:						
Granite and Trap..... tons	—	—	—	—	2,110	9
Limestone..... tons	2,833	8	20,797	69	6,720	20
TOTAL.....		179,008		434,945		544,951
TOTAL, A—CLAY BELT						
Metallics.....		52,248		75,274		77,264
Bismuth..... lb.	—	—	—	—	18,581	27
Cobalt..... lb.	109,123	90	1,213,786	3,231	758,858	1,507
Copper..... lb.	7,159	1	3,792,007	1,398	2,358,492	600
Gold..... troy oz.	1,345,344	51,796	1,926,072	66,488	2,043,422	69,435
Lead..... lb.	—	—	—	—	68,848	5
Nickel..... lb.	56,138	10	304,613	266	157,873	120
Silver..... troy oz.	747,004	351	4,411,792	3,890	6,417,620	5,571
Tungsten (WO ₃)..... lb.	787	1	—	—	—	—
Non-Metallics.....		133		3,387		3,944
Arsenious Oxide..... lb.	224,467	12	1,571,787	69	2,323,320	95
Asbestos..... tons	—	—	24,550	3,318	21,650	3,849
Feldspar..... tons	1,047	6	—	—	—	—
Mica..... lb.	19,767	73	—	—	6,100	**
Quartz ¹⁴ tons	2,918	42	—	—	—	—
Structural Materials.....		504		1,471		1,139
Clay Products..... *	*	7	*	26	—	—
Sand and Gravel..... tons	2,386,457	489	3,140,772	1,419	3,117,993	1,111
Stone:						
Granite and Trap..... tons	—	—	—	—	2,110	9
Limestone..... tons	2,833	8	7,340	25	6,720	20
TOTAL.....		52,886		80,131		82,348

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$000's)	Production	Value (\$000's)	Production	Value (\$000's)
A—Clay Belt						
Cochrane:						
Metallics		32,071		37,284		38,876
Gold.....troy oz.	830,911	31,990	1,074,916	37,106	1,138,190	38,676
Silver.....troy oz.	171,309	81	201,459	178	231,289	201
Tungsten (WO ₃).....lb.	787	1	—	—	—	—
Non-Metallics		42		3,318		3,849
Asbestos.....tons	—	—	24,550	3,318	21,650	3,849
Quartz.....tons	2,918	42	—	—	—	—
Structural Materials		489		994		757
Sand and Gravel.....tons	2,386,457	489	2,213,987	994	2,476,014	757
TOTAL.....		32,602		41,595		43,483
Nipissing:						
Metallics.....		—		—		564
Copper.....lb.	—	—	—	—	2,132,805	542
Gold.....troy oz.	—	—	—	—	460	16
Silver.....troy oz.	—	—	—	—	6,674	6
Non-Metallics		79		—		**
Feldspar.....tons	1,047	6	—	—	—	—
Mica.....lb.	19,767	73	—	—	6,100	**
Structural Materials		7		197		240
Clay Products.....*	*	7	*	26	—	—
Sand and Gravel.....tons	—	—	185,357	171	356,889	233
Stone:						
Granite and Trap.....tons	—	—	—	—	110	7
TOTAL.....		86		197		804
Timiskaming:						
Metallics.....		20,177		37,990		37,824
Bismuth.....lb.	—	—	—	—	18,581	27
Cobalt.....lb.	109,123	90	1,213,786	3,231	758,858	1,507
Copper.....lb.	7,159	1	3,792,007	1,398	225,687	57
Gold.....troy oz.	514,433	19,806	851,156	29,382	904,772	30,744
Lead.....lb.	—	—	—	—	68,848	5
Nickel.....lb.	56,138	10	304,613	266	157,873	120
Silver.....troy oz.	575,695	271	4,210,333	3,713	6,179,657	5,365
Non-Metallics		12		69		95
Arsenious Oxide.....lb.	224,467	12	1,571,787	69	2,323,320	95
Structural Materials		8		280		142
Sand and Gravel.....tons	—	—	741,428	255	285,090	121
Stone:						
Granite and Trap.....tons	—	—	—	—	2,000	2
Limestone.....tons	2,833	8	7,340	25	6,720	20
TOTAL.....		20,197		38,339		38,061
TOTAL, B—NICKEL RANGE						
Metallics		123,088		337,331		252,456
Cobalt.....lb.	—	—	2,082,484	5,280	1,677,206	3,360
Copper.....lb.	239,450,083	29,772	289,021,101	105,818	213,845,782	53,417
Gold.....troy oz.	91,379	3,518	84,179	2,906	75,225	2,556
Nickel.....lb.	245,074,845	61,972	322,017,742	198,223	254,128,911	177,049
Platinum.....troy oz.	208,234	8,017	170,494	14,748	146,092	9,481
Other Platinum Metals.....troy oz.	458,674	18,671	214,252	8,322	154,366	4,840
Selenium.....lb.	168,000	323	94,465	708	90,295	677
Silver.....troy oz.	1,735,143	816	1,492,568	1,316	1,225,937	1,064
Tellurium.....lb.	—	—	6,455	11	6,692	11
Non-Metallics		916		1,440		1,814
Mica.....lb.	44,950	1	—	—	—	—
Pyrite, Pyrrhotite.....tons	—	—	—	—	279,422	656
Quartz.....tons	1,149,434	747	1,407,339	869	912,198	536
Sulphur.....tons	16,847	168	57,100	571	n.a.	623
Structural Materials		—		1,206		856
Sand and Gravel.....tons	—	—	4,675,116	1,162	2,419,343	856
Stone:						
Limestone.....tons	—	—	13,457	44	—	—
TOTAL.....		124,004		339,978		255,126

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
B—Nickel Range						
Manitoulin:						
Non-Metallics.....		321		316		60
Quartz..... tons	153,141	321	114,133	316	18,540	60
Structural Materials.....		—		—		45
Sand and Gravel..... tons	—	—	—	—	53,624	45
TOTAL.....		321		316		105
Sudbury:						
Metallics.....		123,088		337,331		252,456
Cobalt..... lb.	—	—	2,082,484	5,280	1,677,206	3,360
Copper..... lb.	239,450,083	29,772	289,021,101	105,818	213,845,782	53,417
Gold..... troy oz.	91,379	3,518	84,179	2,906	75,225	2,556
Nickel..... lb.	245,074,845	61,972	322,017,742	198,223	254,128,911	177,049
Platinum..... troy oz.	208,234	8,017	170,494	14,748	146,092	9,481
Other Platinum Metals..... troy oz.	458,674	18,671	214,252	8,322	154,366	4,840
Selenium..... lb.	168,000	323	94,465	708	90,295	677
Silver..... troy oz.	1,735,143	816	1,492,568	1,316	1,225,937	1,064
Tellurium..... lb.	—	—	6,455	11	6,692	11
Non-Metallics.....		595		1,125		1,753
Mica..... lb.	44,950	1	—	—	—	—
Pyrite, Pyrrhotite..... tons	—	—	—	—	279,422	656
Quartz..... tons	996,293	426	1,293,206	554	893,658	475
Sulphur..... tons	16,847	168	57,100	571	n.a.	623
Structural Materials.....		—		1,206		811
Sand and Gravel..... tons	—	—	4,675,116	1,162	2,365,719	811
Stone:						
Limestone..... tons	—	—	13,457	44	—	—
TOTAL.....		123,683		339,662		255,021
TOTAL, C—SAULT						
Algoma:						
Metallics.....		1,964		14,347		206,882
Gold..... troy oz.	40	2	106	4	—	—
Iron Ore..... short tons	570,099	1,963	1,604,776	12,805 ¹²	1,774,342	15,725 ¹²
Lead..... lb.	—	—	3,853,603	554	—	—
Silver..... troy oz.	6	**	84,252	74	—	—
Uranium (U ₃ O ₈)..... lb.	—	—	n.a.	487	18,143,987	191,158
Zinc..... lb.	—	—	3,095,640	423	—	—
Non-Metallics.....		143		313		187
Quartz..... tons	5,465	11	—	—	—	—
Silica Brick..... M	1,168	131	3,498	313	1,740	187
Structural Materials.....		11		177		407
Clay Products..... *	*	11	*	36	*	71
Sand and Gravel..... tons	—	—	133,869	141	673,330	337
TOTAL.....		2,118		14,837		207,477
TOTAL, LAKEHEAD-NORTHWESTERN						
ONTARIO REGION						
Metallics.....		9,315		36,390		63,692
Copper..... lb.	—	—	—	—	67,865,202	17,251
Gold..... troy oz.	188,605	7,261	512,683	17,698	597,867	20,316
Iron Ore..... short tons	565,345	1,672	2,537,421	18,637	1,339,584	13,898
Lead..... lb.	668,762	33	—	—	2,444,376	281
Silver..... troy oz.	708,301	333	62,405	55	2,171,700	1,885
Zinc..... lb.	237,799	15	—	—	92,478,339	10,062
Non-Metallics.....		95		—		—
Peat..... tons	3,631	95	—	—	—	—
Structural Materials.....		53		812		2,029
Clay Products..... *	*	35	*	137	*	97
Sand and Gravel..... tons	124,556	17	1,845,229	608	2,441,752	1,745
Stone:						
Granite and Trap..... tons	426	1	320	67	75,169	186
TOTAL.....		9,464		37,202		65,721

MINERAL PRODUCTION, ONTARIO, 1945, 1955 AND 1958—Continued

COUNTIES AND REGIONS

	1945		1955		1958	
	Production	Value (\$'000's)	Production	Value (\$'000's)	Production	Value (\$'000's)
Lakehead-Northwestern Ontario Region						
Kenora:						
Metallics.....		5,723		14,195		16,444
Gold.....troy oz.	138,777	5,343	409,820	14,147	482,476	16,395
Lead.....lb.	668,762	33	—	—	—	—
Silver.....troy oz.	705,436	332	54,257	48	57,363	50
Zinc.....lb.	237,799	15	—	—	—	—
Structural Materials.....		—		301		132
Sand and Gravel.....tons	—	—	481,156	234	15,092	14
Stone:						
Granite and Trap.....tons	—	—	320	67	16,169	118
TOTAL.....		5,723		14,495		16,576
Rainy River:						
Metallics.....		1,672		18,639		13,899
Gold.....troy oz.	—	—	57	2	45	2
Iron Ore.....short tons	565,345	1,672	2,537,421	18,637	1,339,584	13,898
Silver.....troy oz.	—	—	9	**	7	**
Non-Metallics.....		95		—		—
Peat.....tons	3,631	95	—	—	—	—
Structural Materials.....		—		129		40
Sand and Gravel.....tons	—	—	965,195	129	157,167	40
TOTAL.....		1,768		18,768		13,940
Thunder Bay:						
Metallics.....		1,920		3,556		33,349
Copper.....lb.	—	—	—	—	67,865,202	17,251
Gold.....troy oz.	49,828	1,918	102,806	3,549	115,346	3,919
Lead.....lb.	—	—	—	—	2,444,376	281
Silver.....troy oz.	2,865	1	8,139	7	2,114,330	1,835
Zinc.....lb.	—	—	—	—	92,478,339	10,062
Structural Materials.....		53		383		1,857
Clay Products.....*	*	35	*	137	*	97
Sand and Gravel.....tons	124,556	17	398,878	246	2,269,493	1,691
Stone:						
Granite and Trap.....tons	426	1	—	—	59,000	68
TOTAL.....		1,973		3,939		35,205

—Nil.

*No common measure.

**Less than \$500.

n.a. Not available.

¹Included with magnesium.

²Includes calcium.

³Includes \$523 representing the value added by grinding crude feldspar purchased in Quebec; the corresponding volume is not included under "Production".

⁴Excludes Wentworth production and value.

⁵Included under Haldimand.

⁶Includes Wentworth production and value.

⁷Includes Wentworth and Brant production and value.

⁸Includes Lincoln and Wentworth production and value.

⁹Includes Brant, Lincoln and Wentworth production and value.

¹⁰Includes Middlesex production and value.

¹¹Included under Elgin.

¹²Since 1955 the value reported is value at the dock which includes freight charges to the dock.

¹³Includes silica flux and fluxing sand.

Note: County figures are not available for sand and gravel for the Ontario Department of Highways, counties, townships and railway ballast. A breakdown is not available for limestone produced for the Ontario Department of Highways, counties and townships. These data have been estimated for the counties and districts on the basis of their known production.

Source: Ontario Department of Mines.

Conservation

FLOOD CONTROL AND WATER CONSERVATION PROJECTS COMPLETED OR UNDER WAY BY CONSERVATION AUTHORITIES, JANUARY 31, 1961

Authority	Project	Completed	Year of Completion	Ontario Grant	Total* Cost
				%	\$
AUSABLE	Port Franks Diversion	1950	75	158,802	
	Morrison Dam, Exeter	1957	50	199,198	
	Grand Bend Channel Improvement	1958	50	25,260	
BIG CREEK	Houghton Township Water Control	1960	75	5,000*	
	Sutton Dam and Pond	1960	50	15,000*	
CATFISH	Aylmer Ground Water Recharging	1960	75	30,000*	
CROWE	Allan's Mills Dam Repairs	1960	50	2,000*	
	Marmora Dam Repairs	1960	50	29,000*	
GANARASKA	Garden Hill Dam and Reservoir	1960	50	14,000*	
GRAND AUTHORITY	Bridgeport Channel Improvement	1955	37½	1,500	
		1956	50	2,427	
	Bridgeport Gabion Groynes (experimental)	1957	75	18,604	
	Galt: Queen Street Dam	1957	50	3,574	
	Grand Valley Dam Restoration	1957	50	15,468	
	Guelph: Speed Flood Control: I	1958	50	739,934	
	II	1959	50	39,000*	
	Paris Channel Improvement	1955	50	3,788	
	Streambank Erosion Control, Whiteman and Horner Creeks (experimental)	1959	75	6,000	
	Wellesley Dam	1958	50	41,808	
	GRAND COMMISSION	Shand Dam	1942	37½	2,056,487
		Luther Marsh Dam	1953	37½	233,985
Conestogo Dam		1959	37½	5,400,000*	
HOLLAND	Fairey Lake Dam	1955	37½	36,914	
	Witchurch Pond	1958	50	2,720	
MIDDLE MAITLAND	Listowel: Retaining Wall	1958	50	11,863	
METROPOLITAN TORONTO AND REGION	Extension of Flood Warning System	1960	50	9,500*	
	Flood Plain Land Mapping	1960	50	54,630	
	Etobicoke				
	Brampton Diversion	1952	75	976,600	
	Long Branch: River Diversion	1949	75	92,280	
	Piers at Mouth	1949	75	64,405	
	Channel Improvement	1959	50	69,980	
	Don				
	Oakbank Pond	1956	50	2,527	
	Dredging, Lower Don	1956	50	69,436	
	West Branch Diversion	1956	37½	9,701	
	West Branch, York Mills: Flood Plain Lands and Channel Improvements	1960	50	202,000*	
	Erosion Control, Queen Street	1956	37½	69,804	
	Humber				
	Albion Hills Dam	1959	50	76,000*	
	Bolton Dam	1960	50	12,500	
	Black Creek Channel: At Lambton	1960	50	306,680*	
	Flood Retardation Dam	1960	50	392,000*	
	Lower Humber: Channel Improvements:				
	Bloor-Dundas	1959	50	207,336	
	Lambton	1959	50	273,750*	
	Scarlett Road	1960	50	580,430*	
	Rouge-Duffin-Highland-Petticoat				
	Duffin Creek: Goodwood	1958	50	30,938	
	MOIRA	Deloro Dam	1953	37½	51,621
		Lingham Lake Dam	1960	50	8,400*
	NAPANEE	Second Depot Lake Dam	1957	50	193,418
	NORTH GREY	Sydenham Mill Dam, Owen Sound:			
		Structural Repairs	1959	50	32,000*
Indian River Stream Improvement, Peasmarsh		1960	50	1,000*	
SAUBLE	Dam Improvement below McNab Lake	1960	50	250*	
	McNab Lake Dam	1959	50	795	
	Parkhead Dam	1960	50	497	
	Zion Riverbank Erosion Control	1959	50	802	
SAUGEEN	Walkerton	1958	50	13,521	
	Streambank Erosion Control Experiment	1959	75	6,800*	
SOUTH NATION	Casselman Dam	1958	50	35,936	

**FLOOD CONTROL AND WATER CONSERVATION PROJECTS COMPLETED OR UNDER WAY BY CONSERVATION AUTHORITIES,
JANUARY 31, 1961—Continued**

Completed - Continued				
Authority	Project	Year of Completion	Ontario Grant	Total* Cost
			%	\$
UPPER THAMES	Ingersoll Channel.....	1950	75	1,002,992
	Fanshawe Dam.....	1953	37½	4,895,896
	Roadwork.....	1960	50	16,547
	Stream Improvements: Thamesford, Ingersoll, St. Mary's.....	1960	50	460*
	Dorchester Pond.....	1959	50	9,296
	River Bank Improvement.....	1960	50	9,456*
	Streambank Erosion Control, London: University of Western Ontario and St. Peter's Seminary.....	1960	50	26,160*
	Mitchell Channel Improvement: Phase I.....	1960	50	35,000*
	Sub-total.....			\$18,933,670
Under Way				
Authority	Project		Ontario Grant	Estimated Cost
			%	\$
CREDIT	Orangeville Dam (land purchases only).....		50	30,082
GRAND	Guelph: Speed Flood Control: III.....		50	7,500
MIDDLE MAITLAND	Listowel: River Straightening and Dam Capping.....		50	5,550
METROPOLITAN TORONTO AND REGION	Don			
	East Branch, North York: Flood Plain Lands.....		50	60,500
	Humber			
	Black Creek Channel at Lawrence Avenue.....		50	46,600
	Lower Humber: Flood Plain Lands.....		50	41,400
	Flood Plain Lands: Etobicoke, North York and Vaughan Townships.....		50	86,154
	Rouge-Duffin-Highland-Petticoat			
	Highland Creek: Flood Plain and Conservation Lands.....		50	800,000
	Rouge: West Branch: Scarborough Township Flood Plain Lands.....		50	21,871
	Imperial Dam, Tillsonburg.....		50	10,700
OTTER	Norwich Flood Plain Lands.....		50	800
SAUBLE	Shallow Lake Dam.....		50	800
SAUGEEN	Streambank Erosion Control.....		50	250
SIXTEEN-MILE	Kelso Dam and Reservoir.....		50	350,000
UPPER THAMES	Mitchell Channel Improvement: Phase II.....		50	35,000
	Diversion Channel and Pond, Fanshawe.....		50	11,000
	Upper Thames Flood Control Plan (to be extended over ten years).....		37½	9,640,500
	Mitchell Channel Improvement.....	\$ 292,500		
	St. Mary's Channel Improvement.....	315,225		
	Woodstock Channel Improvement.....	84,375		
	Wildwood Dam and Reservoir.....	1,962,400		
	Woodstock Dam and Reservoir.....	1,053,500		
	Glengowan Dam and Reservoir, including roadway over dam.....	2,788,600		
	Thamesford Dam and Reservoir.....	2,520,100		
	Cedar Creek Dam and Reservoir.....	623,800		
	Sub-total.....			\$11,148,707
TOTAL.....				\$30,082,377

*Estimated cost where accounts not settled.

Source: Memorandum from the Ontario Department of Commerce and Development.

CONSERVATION AREAS AND PARK FACILITIES DEVELOPED OR PLANNED BY CONSERVATION AUTHORITIES, JANUARY 31, 1961

Authority and Conservation Area	Total Acreage	Park Acreage	Authority and Conservation Area	Total Acreage	Park Acreage
AUSABLE	411	32	METROPOLITAN TORONTO AND REGION (Continued)		
Exeter	3	—	Humber Valley	148	—
Morrison Dam	77	—	Oakbank	6	6
Port Franks	314	20	Uxbridge	93	—
Rock Glen	17	12	Woodbridge	35	15
BIG CREEK	467	156	MOIRA	588	171
Abigail Becker	12	—	Deloro	95	—
Backus	80	20	O'Hara	35	15
Black Creek	21	6	Plainfield	30	—
Kelvin	12	—	Price	13	6
Quance	8	—	Vanderwater	415	150
Sutton	12	—	NAPANEE	800	—
Teeterville	50	5	Second Depot Lake	800	—
Vanessa	30	—	NIAGARA	242	42
Vittoria	35	5	Ball's Falls	100	—
Waterford	207	120	Long Beach	142	42
CREDIT	919	135	NORTH GREY	130	—
Belfountain	22	—	Bognor	75	—
Erindale	135	35	Inglis Falls	31	—
Forest Conservation Areas	190	—	Peasmarsh	24	—
Mono	170	—	OTTER	60	10
Terra Cotta	300	100	Edison	10	—
Wilcox	102	—	Lake Joseph	15	—
GANARASKA	35	10	Norwich	14	—
Cold Springs	30	5	Port Burwell	21	10
Sylvan Glen	5	5	SAUBLE	182	4
GRAND AUTHORITY	806	390	Colpoj Range	4	4
Byng	144	60	Rankin River	178	—
Doon	58	15	SAUGEEN	177	27
Elora Gorge	307	225	Bell's Lake	100	—
Pinehurst	104	90	Bruce's Dale	12	8
Rockwood	193	—	Durham	35	—
GRAND COMMISSION	13,392	1,100	Mildmay	10	7
Conestogo	5,292	700	Mount Forest	6	4
Luther Marsh	4,900	—	Southampton	6	—
Shand	3,200	400	Varney	8	8
HOLLAND	20	10	SIXTEEN-MILE	451	—
Holland Landing	20	10	Chisholm	70	—
JUNCTION CREEK	3	—	Esquesing	40	—
Garson	3	—	Kelso	341	—
METROPOLITAN TORONTO AND REGION	3,999	503	SPENCER CREEK	50	50
Albion Hills	650	150	Beverly	50	50
Bolton	20	—	UPPER THAMES	2,818	528
Boyd	883	150	Centreville	6	3
Cedar Mills	2	2	Dingman's Creek	18	5
Claremont	300	—	Dorchester	13	9
Cold Creek	353	—	Embro	14	8
Dingle	150	—	Fullarton	81	10
Edgeley-Dalziel (Black Creek)	85	10	Harmony	14	—
Glen Haffy	341	50	Harrington	13	8
Glen Major	67	—	J. Cameron Wilson (Fanshawe)	2,455	450
Greenwood	570	50	Kirkton	5	5
Heart Lake	246	50	Murray Forest	73	10
Humber Trails	50	20	Shakespeare	32	20
			Wilton Grove	20	—
			Woodham	74	—
			TOTAL, ONTARIO ¹	25,550	3,168

¹Of 90 conservation areas, 49 have park acreage.

Source: Ontario Department of Commerce and Development.

Energy

ELECTRIC ENERGY CONSUMED BY AND REVENUE RECEIVED FROM ULTIMATE CUSTOMERS¹ IN ONTARIO, SERVED DIRECTLY OR INDIRECTLY BY THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO, 1951, 1958 AND 1959

	REGIONS									
	1951		1958		1959		Per Cent Change			
	(000,000 Kwh)		(000,000 Kwh)		(000,000 Kwh)		Sales (Kwh)		Revenue (\$)	
	(000,000 Kwh)	(\$000's)	(000,000 Kwh)	(\$000's)	(000,000 Kwh)	(\$000's)	1959/1951	1959/1958	1959/1951	1959/1958
EASTERN ONTARIO										
A—Ottawa Valley										
Primary.....	732.7	7,391	1,367.8	14,840	1,498.8	16,053	104.6	9.6	117.2	8.2
Domestic (Incl. hamlet and summer cottage).....	340.6	3,061	643.4	6,250	717.3	6,880	110.6	11.5	124.7	10.1
Farm.....	17.4	391	41.7	912	48.1	1,017	175.4	15.5	160.1	11.4
Commercial.....	167.9	2,256	379.7	4,942	424.5	5,326	152.8	11.8	136.1	7.8
Power (Incl. direct industrial).....	199.3	1,501	288.2	2,335	292.8	2,396	46.9	1.6	59.7	2.6
Street Lighting.....	7.5	182	14.8	401	16.1	434	116.3	9.0	139.3	8.2
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	732.7	7,391	1,367.8	14,840	1,498.8	16,053	104.6	9.6	117.2	8.2
B—Upper St. Lawrence										
Primary.....	357.6	3,168	824.5	7,580	870.7	7,993	143.5	5.6	158.1	5.5
Domestic (Incl. hamlet and summer cottage).....	84.9	970	170.2	2,072	182.5	2,206	114.9	7.3	127.6	6.5
Farm.....	17.7	389	37.9	850	42.6	928	140.8	12.2	138.3	9.1
Commercial.....	39.1	550	79.9	1,115	85.4	1,187	118.8	7.0	115.7	6.4
Power (Incl. direct industrial).....	213.2	1,187	532.2	3,435	555.4	3,544	160.4	4.4	198.4	3.2
Street Lighting.....	2.7	72	4.3	108	4.8	128	78.8	12.1	78.7	19.6
Secondary (Power).....	41.4	76	32.0	39	4.9	6	-88.1	-84.6	-92.1	-84.7
Total.....	399.0	3,244	856.5	7,619	875.6	7,999	119.5	2.2	146.6	5.0
TOTAL, EASTERN ONTARIO										
Primary.....	1,090.3	10,559	2,192.3	22,420	2,369.5	24,046	117.3	8.1	127.7	7.3
Domestic (Incl. hamlet and summer cottage).....	425.5	4,031	813.6	8,322	899.8	9,086	111.5	10.6	125.4	9.2
Farm.....	35.1	780	79.6	1,762	90.7	1,945	158.4	13.9	149.4	10.4
Commercial.....	207.0	2,806	459.6	6,057	509.9	6,513	146.3	10.9	132.1	7.5
Power (Incl. direct industrial).....	412.5	2,688	820.4	5,770	848.2	5,940	105.6	3.4	121.0	2.9
Street Lighting.....	10.2	254	19.1	509	20.9	562	104.9	9.4	121.3	10.4
Secondary (Power).....	41.4	76	32.0	39	4.9	6	-88.2	-84.7	-92.1	-84.6
Total.....	1,131.7	10,635	2,224.3	22,459	2,374.4	24,052	109.8	6.7	126.2	7.1
LAKE ONTARIO										
Primary.....	638.0	6,777	1,245.4	14,126	1,348.1	14,910	111.3	8.2	120.0	5.6
Domestic (Incl. hamlet and summer cottage).....	170.7	2,354	352.8	5,108	389.5	5,474	128.2	10.4	132.6	7.2
Farm.....	38.1	837	75.4	1,643	84.9	1,800	122.7	12.5	115.2	9.6
Commercial.....	61.2	1,003	113.5	1,921	124.3	2,010	103.1	9.5	100.4	4.6
Power (Incl. direct industrial).....	362.0	2,429	694.3	5,225	739.3	5,387	104.3	6.5	121.7	3.1
Street Lighting.....	6.0	154	9.4	229	10.1	239	68.1	7.5	55.0	4.0
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	638.0	6,777	1,245.4	14,126	1,348.1	14,910	111.3	8.2	120.0	5.6
METROPOLITAN										
Primary.....	3,377.0	36,816	6,816.9	81,270	7,435.2	85,958	120.2	9.1	133.5	5.8
Domestic (Incl. hamlet and summer cottage).....	1,357.4	15,051	2,936.3	35,862	3,164.7	37,495	133.2	7.8	149.1	4.6
Farm.....	47.1	848	74.3	1,409	74.7	1,381	58.4	0.6	62.8	-2.0
Commercial.....	502.0	7,102	1,053.3	16,083	1,140.6	16,879	127.2	8.3	137.7	4.9
Power (Incl. direct industrial).....	1,419.9	12,816	2,656.1	26,001	2,950.9	28,091	107.8	11.1	119.2	8.0
Street Lighting.....	50.6	999	96.9	1,915	104.3	2,112	106.0	7.7	111.4	10.3
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	3,377.0	36,816	6,816.9	81,270	7,435.2	85,958	120.2	9.1	133.5	5.8
NIAGARA										
A—Burlington										
Primary.....	1,367.7	10,953	1,963.9	19,187	2,348.7	21,453	71.7	19.6	95.9	11.8
Domestic (Incl. hamlet and summer cottage).....	257.7	3,068	513.9	6,507	543.4	6,798	110.8	5.7	121.5	4.5
Farm.....	27.1	497	38.0	711	40.4	757	49.2	6.3	52.3	6.4
Commercial.....	112.4	1,380	204.3	2,730	221.6	2,907	97.1	8.5	110.6	6.5
Power (Incl. direct industrial).....	956.7	5,741	1,186.2	8,817	1,521.1	10,540	59.0	28.2	83.6	19.5
Street Lighting.....	13.8	267	21.5	422	22.2	451	60.2	3.3	69.2	6.9
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	1,367.7	10,953	1,963.9	19,187	2,348.7	21,453	71.7	19.6	95.9	11.8
B—Niagara										
Primary.....	3,128.5	14,290	2,989.7	21,841	3,462.3	24,115	10.7	15.8	68.8	10.4
Domestic (Incl. hamlet and summer cottage).....	149.5	1,916	315.2	4,648	328.6	4,835	119.7	4.3	152.4	4.0
Farm.....	27.8	491	45.1	877	47.6	910	71.3	5.6	85.2	3.8
Commercial.....	59.3	847	109.8	1,859	121.3	2,028	104.3	10.5	139.4	9.1
Power (Incl. direct industrial).....	2,884.4	10,849	2,507.4	14,172	2,951.7	16,014	2.3	17.7	47.6	13.0
Street Lighting.....	7.5	187	12.2	285	13.1	328	75.0	7.4	75.2	15.0
Secondary (Power).....	1.3	6	75.3	44	87.1	51	*	15.6	755.6	16.7
Total.....	3,129.8	14,296	3,065.0	21,885	3,549.4	24,166	13.4	15.8	69.0	10.4

ELECTRIC ENERGY CONSUMED BY AND REVENUE RECEIVED FROM ULTIMATE CUSTOMERS¹ IN ONTARIO, SERVED DIRECTLY OR INDIRECTLY
BY THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO, 1951, 1958 AND 1959—Continued

	REGIONS						Per Cent Change			
	1951		1958		1959		Sales (Kwh)		Revenue (\$)	
	(000,000 Kwh)	(\$000's)	(000,000 Kwh)	(\$000's)	(000,000 Kwh)	(\$000's)	1959/1951	1959/1958	1959/1951	1959/1958
TOTAL, NIAGARA										
Primary.....	4,496.2	25,243	4,953.6	41,028	5,811.0	45,568	29.2	17.3	80.5	11.1
Domestic (Incl. hamlet and summer cottage).....	407.2	4,984	829.1	11,155	872.0	11,633	114.1	5.2	133.4	4.3
Farm.....	54.9	988	83.1	1,588	88.0	1,667	60.3	5.9	68.7	5.0
Commercial.....	171.7	2,227	314.1	4,589	342.9	4,935	99.7	9.2	121.6	7.5
Power (Incl. direct industrial).....	3,841.1	16,590	3,693.6	22,989	4,472.8	26,554	16.4	21.1	60.1	15.5
Street Lighting.....	21.3	454	33.7	707	35.3	779	65.7	4.7	71.6	10.2
Secondary (Power).....	1.3	6	75.3	44	87.1	51	*	15.7	750.0	15.9
Total.....	4,497.5	25,249	5,028.9	41,072	5,898.1	45,619	31.1	17.3	80.7	11.1
LAKE ERIE										
Primary.....	568.7	7,118	1,048.1	14,109	1,141.5	15,049	100.7	8.9	111.4	6.7
Domestic (Incl. hamlet and summer cottage).....	215.4	2,723	368.0	5,496	397.5	5,826	84.6	8.0	114.0	6.0
Farm.....	66.0	1,228	110.9	2,151	119.7	2,277	81.3	7.9	85.4	5.8
Commercial.....	85.4	1,205	142.4	2,249	156.3	2,389	83.0	9.8	98.3	6.2
Power (Incl. direct industrial).....	194.2	1,792	413.6	3,900	453.8	4,228	133.7	9.7	135.9	8.4
Street Lighting.....	7.7	170	13.2	313	14.2	329	84.4	7.3	93.2	5.1
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	568.7	7,118	1,048.1	14,109	1,141.5	15,049	100.7	8.9	111.4	6.7
LAKE ST. CLAIR										
A—Border										
Primary.....	610.2	7,827	779.8	11,839	837.3	12,406	37.2	7.4	58.5	4.8
Domestic (Incl. hamlet and summer cottage).....	187.9	2,751	293.8	4,589	309.6	4,736	64.7	5.4	72.2	3.2
Farm.....	43.7	873	62.0	1,290	66.0	1,345	51.3	6.6	54.2	4.2
Commercial.....	90.1	1,453	124.0	2,056	134.5	2,190	49.3	8.5	50.7	6.5
Power (Incl. direct industrial).....	278.9	2,496	284.8	3,498	310.0	3,680	11.1	8.8	47.4	5.2
Street Lighting.....	9.6	254	15.2	406	17.2	455	79.7	13.3	78.8	12.0
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	610.2	7,827	779.8	11,839	837.3	12,406	37.2	7.4	58.5	4.8
B—Lambton										
Primary.....	303.2	2,730	832.7	6,447	944.5	7,113	211.4	13.4	160.6	10.3
Domestic (Incl. hamlet and summer cottage).....	42.8	708	76.8	1,141	82.8	1,198	93.4	7.9	69.2	5.0
Farm.....	11.6	238	20.0	422	21.8	449	88.5	9.0	88.8	6.3
Commercial.....	16.3	286	30.0	487	32.9	517	101.9	9.6	81.0	6.1
Power (Incl. direct industrial).....	231.1	1,452	702.8	4,316	803.7	4,863	247.7	14.4	234.8	12.7
Street Lighting.....	1.4	46	3.1	81	3.3	86	133.1	5.1	88.3	6.7
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	303.2	2,730	832.7	6,447	944.5	7,113	211.4	13.4	160.6	10.3
TOTAL, LAKE ST. CLAIR										
Primary.....	913.4	10,557	1,612.5	18,286	1,781.8	19,519	95.1	10.5	84.9	6.7
Domestic (Incl. hamlet and summer cottage).....	230.7	3,459	370.6	5,730	392.4	5,934	70.1	5.9	71.6	3.6
Farm.....	55.3	1,111	82.0	1,712	87.8	1,794	58.8	7.1	61.5	4.8
Commercial.....	106.4	1,739	154.0	2,543	167.4	2,707	57.3	8.7	55.7	6.4
Power (Incl. direct industrial).....	510.0	3,948	987.6	7,814	1,113.7	8,543	118.4	12.8	116.4	9.3
Street Lighting.....	11.0	300	18.3	487	20.5	541	86.4	12.0	80.3	11.1
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	913.4	10,557	1,612.5	18,286	1,781.8	19,519	95.1	10.5	84.9	6.7
UPPER GRAND RIVER										
Primary.....	638.6	8,035	1,108.4	14,758	1,217.3	15,755	90.6	9.8	96.1	6.8
Domestic (Incl. hamlet and summer cottage).....	220.5	2,797	428.7	5,557	467.8	5,885	112.2	9.1	110.4	5.9
Farm.....	61.9	1,150	114.1	2,216	122.7	2,341	98.2	7.5	103.7	5.6
Commercial.....	76.4	1,231	126.4	2,180	139.6	2,327	82.8	10.4	89.0	6.7
Power (Incl. direct industrial).....	269.6	2,611	422.0	4,405	468.4	4,761	73.7	11.0	82.3	8.1
Street Lighting.....	10.2	246	17.2	400	18.8	441	84.5	9.4	79.1	10.1
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	638.6	8,035	1,108.4	14,758	1,217.3	15,755	90.6	9.8	96.1	6.8
GEORGIAN BAY										
A—Blue Water										
Primary.....	269.0	4,379	580.1	8,993	640.4	9,701	138.1	10.4	121.5	7.9
Domestic (Incl. hamlet and summer cottage).....	104.0	1,756	251.1	3,926	279.0	4,252	168.3	11.1	142.1	8.3
Farm.....	37.6	833	82.0	1,781	91.7	1,928	144.1	11.9	131.5	8.3
Commercial.....	41.8	747	85.1	1,784	94.1	1,584	125.4	10.6	112.1	7.8
Power (Incl. direct industrial).....	80.6	921	154.2	1,639	167.6	1,749	108.0	8.7	89.9	6.7
Street Lighting.....	5.0	122	7.7	177	8.0	188	59.1	3.8	53.9	5.9
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	269.0	4,379	580.1	8,993	640.4	9,701	138.1	10.4	121.5	7.9
B—Highlands										
Primary.....	50.0	862	103.6	1,875	111.2	1,976	122.4	7.2	129.2	5.4
Domestic (Incl. hamlet and summer cottage).....	20.9	456	48.6	1,018	54.7	1,123	162.3	12.5	146.5	10.4
Farm.....	1.4	44	2.8	77	3.1	80	120.3	11.2	80.5	3.9
Commercial.....	8.7	167	21.2	402	22.9	419	161.7	7.9	151.1	4.3
Power (Incl. direct industrial).....	18.2	171	29.6	345	29.0	319	59.9	-2.0	86.4	-7.6
Street Lighting.....	0.8	24	1.4	33	1.5	35	74.4	0.9	45.4	7.4
Secondary (Power).....	—	—	—	—	—	—	—	—	—	—
Total.....	50.0	862	103.6	1,875	111.2	1,976	122.4	7.2	129.2	5.4

**ELECTRIC ENERGY CONSUMED BY AND REVENUE RECEIVED FROM ULTIMATE CUSTOMERS IN ONTARIO, SERVED DIRECTLY OR INDIRECTLY
BY THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO, 1951, 1958 AND 1959—Continued**

	REGIONS									
							Per Cent Change			
	1951		1958		1959		Sales (Kwh)		Revenue (\$)	
	(000,000 Kwh)	(\$000's)	(000,000 Kwh)	(\$000's)	(000,000 Kwh)	(\$000's)	1959/1951	1959/1958	1959/1951	1959/1958
TOTAL, GEORGIAN BAY										
Primary	319.0	5,241	683.7	10,868	751.6	11,677	135.6	9.9	122.8	7.4
Domestic (Incl. hamlet and summer cottage) ..	124.9	2,212	299.7	4,944	333.7	5,375	167.2	11.3	143.0	8.7
Farm	39.0	877	84.8	1,858	94.8	2,008	143.1	11.8	129.0	8.1
Commercial	50.5	914	106.3	1,872	117.0	2,003	131.7	10.1	119.1	7.0
Power (Incl. direct industrial)	98.8	1,092	183.8	1,984	196.6	2,068	99.0	7.0	89.4	4.2
Street Lighting	5.8	146	9.1	210	9.5	223	63.8	4.4	52.7	6.2
Secondary (Power)	—	—	—	—	—	—	—	—	—	—
Total	319.0	5,241	683.7	10,868	751.6	11,677	135.6	9.9	122.8	7.4
NORTHEASTERN ONTARIO										
A—Clay Belt										
Primary	666.7	5,147	917.4	9,117	955.1	9,610	43.3	4.1	86.7	5.4
Domestic (Incl. hamlet and summer cottage) ..	74.9	1,240	188.0	2,915	210.9	3,201	181.5	12.2	158.1	9.8
Farm	4.1	111	16.9	398	19.5	436	372.0	14.7	292.2	9.7
Commercial	37.3	647	83.2	1,442	89.5	1,524	140.1	7.5	135.6	5.6
Power (Incl. direct industrial)	547.7	3,070	624.3	4,229	630.1	4,313	15.0	0.9	40.5	2.0
Street Lighting	2.7	79	5.0	133	5.1	136	90.3	3.1	72.3	2.3
Secondary (Power)	143.3	215	96.1	148	65.0	128	-54.6	-32.4	-40.6	-14.0
Total	810.0	5,362	1,013.5	9,265	1,020.1	9,738	25.9	0.6	81.6	5.1
B—Nickel Range										
Primary	711.4	4,023	1,097.6	8,783	1,425.5	10,431	100.4	29.9	159.3	18.8
Domestic (Incl. hamlet and summer cottage) ..	58.6	843	153.0	2,479	171.2	2,723	191.9	11.9	223.3	9.9
Farm	2.6	64	5.8	135	6.2	142	138.9	7.8	121.1	5.2
Commercial	20.6	343	44.4	834	47.4	886	130.2	6.7	158.1	6.2
Power (Incl. direct industrial)	627.6	2,718	891.2	5,216	1,197.3	6,558	90.8	34.3	141.3	25.7
Street Lighting	2.0	55	3.2	119	3.4	122	73.7	5.3	121.2	3.1
Secondary (Power)	—	—	—	—	—	—	—	—	—	—
Total	711.4	4,023	1,097.6	8,783	1,425.5	10,431	100.4	29.9	159.3	18.8
C—Sault										
Primary	—	—	601.2	4,119	717.0	4,920	—	19.2	—	19.4
Domestic (Incl. hamlet and summer cottage) ..	—	—	20.9	431	31.7	592	—	51.6	—	37.2
Farm	—	—	1.1	28	1.4	33	—	26.7	—	18.7
Commercial	—	—	12.7	256	14.8	289	—	16.3	—	13.2
Power (Incl. direct industrial)	—	—	566.1	3,392	667.7	3,980	—	17.9	—	17.3
Street Lighting	—	—	0.4	12	1.4	26	—	222.5	—	116.8
Secondary (Power)	—	—	—	—	—	—	—	—	—	—
Total	—	—	601.2	4,119	717.0	4,920	—	19.2	—	19.4
TOTAL, NORTHEASTERN ONTARIO										
Primary	1,378.1	9,170	2,616.2	22,019	3,097.6	24,961	124.8	18.4	172.2	13.4
Domestic (Incl. hamlet and summer cottage) ..	133.5	2,083	361.9	5,825	413.8	6,516	210.0	14.3	212.8	11.9
Farm	6.7	175	23.8	561	27.1	611	304.5	13.9	249.1	8.9
Commercial	57.9	990	140.3	2,532	151.7	2,699	162.0	8.1	172.6	6.6
Power (Incl. direct industrial)	1,175.3	5,788	2,081.6	12,837	2,495.1	14,851	112.3	19.9	156.6	15.7
Street Lighting	4.7	134	8.6	264	9.9	284	110.6	15.1	111.9	7.6
Secondary (Power)	143.3	215	96.1	148	65.0	128	-54.6	-32.4	-40.5	-13.5
Total	1,521.4	9,385	2,712.3	22,167	3,162.6	25,089	107.9	16.6	167.3	13.2
LAKEHEAD-NORTHWESTERN ONTARIO										
Primary	1,289.9	6,617	2,458.3	15,932	2,538.6	16,791	96.8	3.3	153.8	5.4
Domestic (Incl. hamlet and summer cottage) ..	124.0	1,209	236.2	2,481	258.4	2,764	108.4	9.4	128.5	11.4
Farm	3.9	104	11.1	259	13.6	298	251.0	22.3	186.6	15.2
Commercial	45.5	617	94.9	1,288	102.2	1,382	124.6	7.7	124.0	7.4
Power (Incl. direct industrial)	1,112.0	4,602	2,109.1	11,746	2,156.6	12,153	93.9	2.3	164.1	3.5
Street Lighting	4.5	85	7.0	158	7.8	194	75.1	12.1	128.9	22.5
Secondary (Power)	300.1	401	70.1	92	290.7	377	-3.1	314.8	-6.1	312.9
Total	1,590.0	7,018	2,528.4	16,024	2,829.3	17,168	77.9	11.9	144.6	7.1
GRAND TOTAL, ONTARIO										
Primary	14,709.2	126,133	24,735.4	254,816	27,492.2	274,234	86.9	9.9	117.4	7.6
Domestic (Incl. hamlet and summer cottage) ..	3,409.8	40,903	6,996.9	90,480	7,589.6	95,988	122.6	8.5	134.7	6.1
Farm	408.0	8,098	739.1	15,159	804.0	16,122	97.1	8.8	99.1	6.4
Commercial	1,364.0	19,834	2,704.8	41,314	2,951.9	43,844	116.4	9.1	121.1	6.1
Power (Incl. direct industrial)	9,395.4	54,356	14,062.1	102,671	15,895.4	112,576	69.2	13.0	107.1	9.6
Street Lighting	132.0	2,942	232.5	5,192	251.3	5,704	90.4	8.1	93.9	9.9
Secondary (Power)	486.1	698	273.5	323	447.7	562	-7.9	63.7	-19.5	74.2
Total	15,195.3	126,831	25,008.9	255,139	27,939.9	274,796	83.9	11.3	116.7	7.7

*Over 1,000 per cent increase.

†Total for customers of municipal electrical utilities, Ontario Hydro's local systems, Rural Operating Areas and direct industrial customers.

Source: The Hydro-Electric Power Commission of Ontario.

Manufacturing

Survey of Manufacturing

The geographical distribution of manufacturing activity within the Province reflects closely the distribution of population and natural resources. As one might expect, most secondary manufacturing operations are concentrated in the populous southern section of the Province. Because of the great wealth of mineral and forest resources in Northern Ontario, primary manufacturing industry predominates there. In the largely agricultural regions, industries within the foods and beverages group are the most important. There are, of course, manufacturing centres of considerable importance outside of these areas which often specialize in some particular type of product.

Although manufacturing is widely dispersed from one boundary to the other, the "Golden Horseshoe of Ontario" which extends from Oshawa around the western end of Lake Ontario to the Niagara Peninsula, contains the most concentrated structure of manufacturing activity in the Province. The two economic regions in this area accounted for about 59 per cent of Ontario's selling value of factory shipments in 1958—the Metropolitan Region making up nearly 41 per cent and the Niagara Region 18 per cent. The Metropolitan Region alone accounts for one-fifth of total Canadian manufacturing output. The Lake St. Clair Region in 1958 had 10 per cent—over \$1 billion—of the Province's selling value of factory shipments. In the remaining regions, the value of factory shipments ranged between \$196 million and \$1 billion.

In all of the regions the selling value of factory shipments more than doubled between 1946 and 1958. The Metropolitan Region had the highest rate of expansion during the post-war period, as its value of output in 1958 was more than three and one-quarter times the 1946 level. Northeastern Ontario rose by more than three times.

In 1958 nearly 261,000 persons were employed in manufacturing in the Metropolitan Region, about 104,000 in the Niagara Region, 47,000 in the Upper Grand River Region and 44,000 in the Lake St. Clair Region. The remaining 152,000 (25 per cent) were distributed throughout the rest of the Province.

The industries of the foods and beverages group are scattered throughout all regions. For five of these regions—Eastern Ontario, Lake Ontario, Lake Erie, Upper Grand River and Georgian Bay—this group was the most important in terms of value of factory shipments in 1958. Transportation equipment was the largest group in both the Metropolitan and Lake St. Clair regions, iron and steel products was first in Niagara, non-ferrous metal products in Northeastern Ontario and paper products in Lakehead-Northwestern Ontario.

Iron and steel products, the largest employer in Ontario in 1958, was also largest in the Niagara, Upper Grand River and Northeastern Ontario regions. In the Metro-

politan and Lake St. Clair regions, more people were employed in the transportation equipment group than in any other. The foods and beverages group was most important in Eastern Ontario and Lake Erie, electrical apparatus in Lake Ontario, wood products in Georgian Bay and paper products in Lakehead-Northwestern Ontario.

The production of motor vehicles, the largest single manufacturing industry in Ontario, is concentrated in Windsor, in the Lake St. Clair Region and Oshawa and Oakville in the Metropolitan Region. Most of the output of primary iron and steel comes from the great steel mills in Hamilton in the Niagara Region and Sault Ste. Marie in Northeastern Ontario. The production of pulp and paper is carried on in six regions although three, Lakehead-Northwestern, Northeastern, and Niagara, account for over 80 per cent of the total selling value of factory shipments. Most of the pulp and newsprint mills are in the two regions of Northern Ontario while a large proportion of fine and specialty paper is produced in the Eastern Ontario, Metropolitan and Niagara regions. The fourth most important industry in the Province in 1958 was the smelting and refining of non-ferrous metals. Nickel-copper and silver-cobalt ores are processed in Northeastern Ontario, uranium in the Lake Ontario, nickel in the Niagara and magnesium in the Eastern Ontario regions. Slaughtering and meat packing firms, although located in all regions except Lake Erie and Northeastern Ontario, are of major importance in the Metropolitan, Niagara and Upper Grand River regions.

Other industries of major significance to the economy of the individual regions are the production of butter and cheese in Eastern Ontario, industrial machinery in Lake Ontario, aircraft and parts in Metropolitan, tobacco processing and packing in Lake Erie, motor vehicle parts in Lake St. Clair, furniture and rubber goods in Upper Grand River, and furniture in Georgian Bay.

In 1958, Metropolitan Toronto accounted for almost 30 per cent of Ontario's total manufacturing production. Industry in the City was well diversified, with all industrial groups represented. Hamilton, which produced goods worth \$1 billion in 1958, is predominantly an iron and steel centre. Other industrial groups of major importance in the City are electrical apparatus and supplies and foods and beverages. Although the City of Windsor has been attracting a variety of industries in recent years, it is still heavily dependent on the motor vehicle and motor vehicle parts industries for its economic well-being. Among other leading Ontario centres, Sarnia is characterized by chemicals and petroleum refining, Kitchener by slaughtering and meat packing and rubber goods, Oshawa by motor vehicles, London by various foods and beverage industries and Sault Ste. Marie by primary iron and steel.

MANUFACTURING ESTABLISHMENTS, EMPLOYEES, PAYROLLS AND SELLING VALUE OF FACTORY SHIPMENTS, ONTARIO, 1958

SELECTED URBAN CENTRES¹

	Establishments	Employees	Payrolls	Selling Value of Factory Shipments
	No.	No.	(\$000's)	(\$000's)
EASTERN ONTARIO				
A—Ottawa Valley				
Arnprior.....	19	953	2,950	11,191
Carleton Place.....	13	383	1,158	4,241
Casselman.....	10	92	221	2,221
Eastview.....	23	434	1,679	8,826
Eganville.....	10	104	287	1,779
Ottawa.....	290	9,968	36,208	130,610
Pembroke.....	28	1,377	4,359	12,075
Perth.....	26	788	2,251	9,643
Renfrew.....	24	655	2,068	6,622
Smiths Falls.....	30	707	2,155	10,480
B—Upper St. Lawrence				
Alexandria.....	9	170	378	2,484
Brockville.....	46	3,215	11,998	70,977
Cornwall.....	53	6,197	23,967	88,815
Gananoque.....	17	771	2,893	10,960
Kemptville.....	9	94	303	3,553
Kingston.....	75	4,318	16,775	54,949
LAKE ONTARIO				
Belleville.....	72	3,204	11,772	40,004
Bloomfield.....	7	132	291	1,926
Bowmanville.....	16	747	2,861	11,303
Brighton.....	11	214	523	2,740
Campbellford.....	18	269	756	3,073
Cobourg.....	31	984	3,604	21,812
Deseronto.....	7	195	494	2,584
Lindsay.....	36	1,569	4,888	18,892
Napanee.....	17	462	1,582	7,286
Newcastle.....	5	155	437	1,222
Peterborough.....	93	9,480	48,464	148,137
Picton.....	16	282	868	3,380
Stirling.....	9	139	282	1,229
Trenton.....	28	1,716	5,714	26,385
Tweed.....	7	125	320	1,126
METROPOLITAN				
Acton.....	18	934	3,195	12,511
Ajax.....	37	1,701	6,250	26,900
Aurora.....	23	1,069	3,752	19,171
Beaverton.....	7	148	434	1,508
Brampton.....	43	1,818	6,674	24,947
Burlington.....	54	2,054	7,153	30,606
Georgetown.....	24	1,244	4,809	16,645
Leaside.....	46	7,586	31,066	106,449
Long Branch.....	22	978	3,851	19,885
Markham.....	13	251	786	4,446
Milton.....	15	888	3,627	13,235
Mimico.....	37	864	3,082	11,535
Newmarket.....	21	1,014	3,419	13,713
New Toronto.....	43	7,372	33,694	177,033
Oakville.....	48	1,869	7,338	31,420
Richmond Hill.....	16	228	801	4,931
Swansea.....	16	820	3,397	14,462
Toronto.....	3,185	124,789	485,767	1,825,715
Weston.....	53	2,105	8,213	27,600
NIAGARA				
A—Burlington				
Brantford.....	173	10,781	38,734	144,357
Dundas.....	37	1,119	4,015	12,080
Hamilton.....	548	50,219	219,874	943,304
Paris.....	30	1,079	3,219	11,599
Stoney Creek.....	12	251	643	3,127

SELECTED URBAN CENTRES¹

	Establishments	Employees	Payrolls	Selling Value of Factory Shipments
	No.	No.	(\$000's)	(\$000's)
B—Niagara				
Beamsville.....	8	136	382	1,338
Dunnville.....	17	1,247	3,336	16,725
Fort Erie.....	30	855	3,495	18,215
Grimsby.....	19	519	1,258	5,230
Merritton.....	18	1,688	7,385	30,847
Niagara Falls.....	79	4,444	18,096	73,435
St. Catharines.....	102	6,321	26,533	74,554
Thorold.....	24	1,527	6,574	26,643
Welland.....	52	2,820	10,142	32,328
LAKE ERIE				
Glencoe.....	8	238	586	2,209
Ingersoll.....	29	1,034	3,443	21,434
London.....	281	15,110	54,928	212,874
Norwich.....	8	85	204	1,724
Port Dover.....	9	178	363	1,716
St. Thomas.....	53	2,417	8,517	35,606
Simcoe.....	27	1,390	5,176	39,173
Strathroy.....	25	672	1,978	8,375
Tavistock.....	7	80	199	1,352
Tillsonburg.....	26	971	3,010	25,158
West Lorne.....	7	284	736	2,578
Woodstock.....	58	3,933	13,750	68,400
LAKE ST. CLAIR				
A—Border				
Blenheim.....	9	86	222	1,024
Chatham.....	70	3,423	13,250	99,782
Dresden.....	10	185	572	3,711
Essex.....	11	269	877	3,278
Ridgetown.....	14	214	643	4,351
Riverside.....	10	137	511	2,263
Thamesville.....	9	163	453	2,782
Wallaceburg.....	29	2,227	7,979	22,946
Wheatley.....	6	154	353	1,272
Windsor.....	305	22,249	102,997	421,681
B—Lambton				
Sarnia.....	51	7,211	36,609	362,596
UPPER GRAND RIVER				
Blyth.....	5	43	149	1,686
Clinton.....	12	220	497	1,636
Elmira.....	20	736	2,561	13,545
Galt.....	92	7,140	24,712	85,888
Goderich.....	18	450	1,427	7,588
Guelph.....	113	6,409	23,466	87,706
Harriston.....	10	173	413	2,383
Hespeler.....	15	866	3,006	10,009
Kitchener.....	196	15,200	54,428	232,152
Listowel.....	13	488	1,300	5,767
Milverton.....	12	293	853	3,242
Mount Forest.....	16	250	513	2,196
New Hamburg.....	13	437	1,061	3,853
Preston.....	45	2,846	9,593	30,153
St. Mary's.....	14	570	2,155	15,311
Seaforth.....	14	300	753	2,266
Stratford.....	74	3,477	11,777	42,055
Waterloo.....	63	3,128	10,878	59,225
Wingham.....	17	403	1,180	5,710
GEORGIAN BAY				
A—Blue Water				
Alliston.....	10	187	561	2,417
Barrie.....	40	1,754	6,482	34,972
Chesley.....	14	245	603	1,645
Collingwood.....	25	1,678	5,357	18,263
Durham.....	13	214	633	2,643
Hanover.....	23	1,027	2,958	9,850
Kincardine.....	14	396	989	3,192
Lucknow.....	7	32	86	1,377
Meaford.....	20	486	1,174	5,018

SELECTED URBAN CENTRES¹

	Establishments	Employees	Payrolls	Selling Value of Factory Shipments
	No.	No.	(\$000's)	(\$000's)
A—Blue Water—Continued				
Midland.....	29	1,135	3,342	14,577
Orangeville.....	15	176	484	1,955
Orillia.....	60	2,224	7,006	20,814
Owen Sound.....	50	2,179	6,885	23,176
Penetanguishene.....	12	359	949	2,633
Port Elgin.....	8	171	355	1,085
Southampton.....	6	310	779	2,603
Walkerton.....	14	564	1,581	4,201
B—Highlands				
Gravenhurst.....	11	319	1,022	3,260
Huntsville.....	15	362	1,050	4,818
NORTHEASTERN ONTARIO				
A—Clay Belt				
New Liskeard.....	15	487	1,627	5,096
North Bay.....	29	592	2,122	7,460
Timmins.....	24	355	1,071	4,942
B—Nickel Range				
Sudbury.....	57	1,102	4,282	15,897
C—Sault				
Sault Ste. Marie.....	48	8,514	41,666	163,759
LAKEHEAD-NORTHWESTERN ONTARIO				
Fort William.....	70	3,482	14,610	70,942
Port Arthur.....	58	2,664	10,544	47,570

¹Statistics for certain important manufacturing centres are not shown in order to avoid disclosing information about individual establishments.Source: Dominion Bureau of Statistics, *The Manufacturing Industries of Canada, Geographical Distribution*.

SELLING VALUE OF FACTORY SHIPMENTS, ONTARIO, 1946 AND 1956 TO 1958

LEADING CITIES AND METROPOLITAN AREAS

(Ranked by 1958 City Selling Value of Factory Shipments)

		1946 ¹	1956	1957	1958
			(Thousands of Dollars)		
Toronto	City.....	1,036,940	1,797,706	1,832,081	1,825,715
	Metropolitan Area.....	n.a.	2,924,421	3,027,444	3,103,952
Hamilton	City.....	308,033	987,729	1,031,431	943,304
	Metropolitan Area.....	n.a.	1,029,718	1,082,274	999,232
Windsor	City.....	244,925	369,790	533,532	421,681
	Metropolitan Area.....	n.a.	613,420	560,123	445,780
Sarnia	City ²	89,099	356,837	355,282	362,596
	City.....	94,731	221,984	253,156	231,152
Kitchener	Metropolitan Area.....	n.a.	274,238	294,228	296,021
	City.....	90,645	211,681	219,099	212,874
London	Metropolitan Area.....	n.a.	278,645	301,245	289,940
	City ²	49,637	168,320	171,454	163,759
Peterborough	City ²	79,165	153,392	155,237	148,137
	City.....	67,917	141,010	144,091	144,357
Brantford	Metropolitan Area.....	n.a.	148,510	148,746	150,201
	City.....	53,313	119,651	121,845	130,610
Ottawa	Metropolitan Area.....	n.a.	247,183	256,411	250,814
	City.....	49,583	67,404	73,449	74,554
St. Catharines	Metropolitan Area.....	n.a.	256,340	263,147	263,208

n.a. Not available.

¹Gross value of products.²Metropolitan area statistics not available.Source: Dominion Bureau of Statistics, *The Manufacturing Industries of Canada, Geographical Distribution*.

PRINCIPAL STATISTICS OF MANUFACTURING, ONTARIO, 1946 AND 1956 TO 1958

COUNTIES AND REGIONS

		Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Net Value of Products ¹	Gross Value of Products ²
EASTERN ONTARIO		No.	No.		(Thousands of Dollars)			
A—Ottawa Valley								
Carleton.....	1946	300	10,717	17,590	1,447	28,138	32,128	61,713
	1956	384	11,682	37,749	2,646	60,881	70,727	134,254
	1957	379	11,564	39,506	2,886	62,159	72,623	137,668
	1958	350	11,134	40,686	2,847	67,045	76,980	146,872
Lanark.....	1946	116	3,762	5,180	360	9,521	9,002	18,883
	1956	123	2,671	6,744	599	14,739	14,501	29,839
	1957	133	2,761	7,289	635	15,805	15,921	32,361
	1958	128	2,503	7,123	622	15,623	16,073	32,318
Prescott.....	1946	112	1,029	1,650	753	5,976	2,724	9,453
	1956	74	1,158	3,865	1,213	8,898	7,410	17,521
	1957	82	1,153	3,619	1,081	8,297	6,970	16,348
	1958	79	1,171	3,813	1,132	8,892	7,170	17,194
Renfrew.....	1946	184	3,835	5,111	376	10,664	9,331	20,371
	1956	186	4,803	13,103	1,384	26,192	24,514	52,090
	1957	188	4,487	13,190	1,459	24,332	26,411	52,202
	1958	175	4,114	12,563	1,220	22,031	22,132	45,383
Russell.....	1946	69	253	214	38	1,555	500	2,093
	1956	51	190	380	103	3,436	617	4,156
	1957	53	211	481	117	3,817	930	4,864
	1958	51	208	482	123	4,616	861	5,600
Sub-total.....	1946	781	19,596	29,745	2,974	55,854	53,685	112,513
	1956	818	20,504	61,841	5,945	114,146	117,769	237,860
	1957	835	20,176	64,085	6,178	114,410	122,855	243,443
	1958	783	19,130	64,667	5,944	118,207	123,216	247,367
B—Upper St. Lawrence								
Dundas.....	1946	51	515	655	116	4,192	1,754	6,062
	1956	46	716	1,790	253	12,178	7,296	19,727
	1957	50	701	1,919	324	13,893	6,597	20,814
	1958	46	758	2,224	378	14,963	7,409	22,750
Frontenac.....	1946	105	5,464	9,263	897	16,976	21,199	39,072
	1956	111	6,373	21,965	1,740	48,422	45,369	95,531
	1957	113	6,072	22,266	1,829	47,865	45,619	95,313
	1958	107	5,647	22,452	1,880	40,594	50,928	93,403
Glengarry.....	1946	84	358	322	58	2,311	553	2,922
	1956	50	364	660	106	3,013	1,090	4,209
	1957	49	372	763	122	3,443	1,216	4,781
	1958	46	321	758	107	4,486	1,521	6,114
Grenville.....	1946	56	1,363	1,764	404	5,588	3,487	9,479
	1956	58	2,508	8,245	1,626	30,982	19,565	52,173
	1957	61	2,457	9,007	1,815	27,917	21,289	51,021
	1958	61	2,599	10,025	1,958	30,374	25,149	57,481
Leeds.....	1946	125	2,693	4,034	409	14,416	8,972	23,797
	1956	110	4,219	14,357	983	64,226	30,337	95,546
	1957	109	4,333	15,206	1,045	50,315	27,260	78,620
	1958	103	4,193	15,402	1,051	48,194	35,736	84,981
Stormont.....	1946	88	6,184	9,530	2,142	16,581	17,119	35,842
	1956	92	7,700	25,815	5,456	47,219	47,995	100,670
	1957	94	7,088	25,907	5,884	46,592	45,505	97,981
	1958	88	6,392	24,485	5,679	41,251	46,233	93,163
Sub-total.....	1946	509	16,577	25,568	4,026	60,064	53,084	117,174
	1956	467	21,880	72,832	10,164	206,040	151,652	367,856
	1957	476	21,023	75,068	11,019	190,025	147,486	348,530
	1958	451	19,910	75,346	11,053	179,862	166,976	357,891
TOTAL, EASTERN ONTARIO.....								
	1946	1,290	36,173	55,313	7,000	115,918	106,769	229,687
	1956	1,285	42,384	134,673	16,109	320,186	269,421	605,716
	1957	1,311	41,199	139,153	17,197	304,435	270,341	591,973
	1958	1,234	39,040	140,013	16,997	298,069	290,192	605,258
LAKE ONTARIO								
Durham.....	1946	69	2,075	3,387	285	6,079	7,811	14,175
	1956	74	2,567	8,817	641	55,859	18,808	75,308
	1957	80	2,651	9,526	740	95,703	20,372	116,815
	1958	73	2,393	8,857	748	92,428	18,042	111,218
Haliburton.....	1946	32	322	381	7	624	657	1,288
	1956	24	314	749	59	1,366	1,151	2,576
	1957	24	268	683	33	1,121	881	2,035
	1958	21	266	734	36	1,074	903	2,013

PRINCIPAL STATISTICS OF MANUFACTURING, ONTARIO, 1946 AND 1956 TO 1958—Continued

COUNTIES AND REGIONS								
		Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant and Materials Used	Net Value of Products ¹	Gross Value of Products ¹
		No.	No.		(Thousands of Dollars)			
LAKE ONTARIO—Continued								
Hastings.....	1946	223	6,098	8,676	1,414	19,412	19,131	39,957
	1956	231	8,324	25,179	3,887	47,799	54,987	106,673
	1957	232	8,632	27,365	4,303	47,903	56,524	108,730
	1958	233	7,873	26,057	4,031	47,121	55,065	106,217
Lennox & Addington.....	1946	74	806	983	237	3,159	2,132	5,528
	1956	55	1,301	4,086	696	8,810	5,226	14,732
	1957	59	1,611	5,426	921	12,677	6,719	20,317
	1958	52	1,407	5,296	1,275	11,545	7,470	20,290
Northumberland.....	1946	124	1,630	2,059	217	6,726	4,559	11,502
	1956	121	2,064	5,956	461	16,102	13,526	30,089
	1957	125	2,064	5,903	516	18,149	13,790	32,455
	1958	117	1,869	5,826	484	16,799	15,866	33,149
Peterborough.....	1946	137	9,667	15,975	941	48,906	31,469	81,316
	1956	138	10,173	38,378	1,460	86,376	68,592	156,428
	1957	145	10,650	43,213	1,580	77,392	79,630	158,602
	1958	143	9,719	49,135	1,615	76,050	74,181	151,846
Prince Edward.....	1946	71	902	881	125	4,140	2,222	6,487
	1956	58	729	1,342	178	4,945	2,927	8,050
	1957	60	732	1,384	192	5,596	1,449	7,237
	1958	54	732	1,804	622	5,650	3,757	10,029
Victoria.....	1946	79	1,311	1,543	206	4,597	2,705	7,508
	1956	83	1,874	5,028	438	8,740	9,405	18,583
	1957	85	1,862	5,223	471	8,975	9,057	18,503
	1958	78	1,787	5,394	473	9,041	11,407	20,921
TOTAL, LAKE ONTARIO.....	1946	809	22,811	33,885	3,432	93,643	70,686	167,761
	1956	784	27,346	89,535	7,820	229,997	174,622	412,439
	1957	810	28,470	98,723	8,756	267,516	188,422	464,694
	1958	771	26,046	103,103	9,284	259,708	186,691	455,683
METROPOLITAN								
Halton.....	1946	105	4,004	6,495	738	17,194	13,568	31,500
	1956	170	11,202	41,206	2,734	246,629	82,361	331,724
	1957	186	11,339	43,742	3,136	232,372	98,543	334,051
	1958	190	10,752	42,041	3,067	201,927	100,329	305,323
Ontario.....	1946	129	7,986	15,123	948	42,241	23,374	66,563
	1956	202	18,457	75,165	3,438	307,513	171,342	482,293
	1957	210	19,576	79,631	3,666	311,290	189,719	504,675
	1958	209	18,670	83,027	3,884	335,339	202,011	541,234
Peel.....	1946	77	3,457	6,309	1,220	18,139	14,561	33,920
	1956	150	19,459	81,005	6,986	141,273	145,665	293,924
	1957	177	21,885	95,744	10,057	158,004	178,415	346,476
	1958	174	22,537	102,172	11,009	193,173	197,851	402,033
York.....	1946	3,968	167,328	287,541	14,802	630,705	560,326	1,205,833
	1956	4,864	211,164	753,439	34,208	1,552,119	1,380,546	2,966,873
	1957	4,942	213,820	793,489	36,228	1,565,991	1,473,593	3,075,812
	1958	4,905	209,132	827,643	36,821	1,624,280	1,504,987	3,166,088
TOTAL, METROPOLITAN.....	1946	4,279	182,775	315,468	17,708	708,279	611,829	1,337,816
	1956	5,386	260,282	950,814	47,366	2,247,533	1,779,916	4,074,815
	1957	5,515	266,620	1,012,606	53,087	2,267,657	1,940,270	4,261,014
	1958	5,478	260,911	1,054,883	54,781	2,354,719	2,005,178	4,414,678
NIAGARA								
A—Burlington								
Brant.....	1946	169	13,673	23,305	1,255	35,753	39,106	76,114
	1956	220	12,732	41,428	2,361	85,098	76,183	163,642
	1957	234	12,446	41,881	2,443	79,009	83,472	164,924
	1958	239	12,464	43,826	2,561	84,576	77,911	165,048
Wentworth.....	1946	574	47,968	84,152	10,674	155,587	152,510	318,771
	1956	681	61,241	239,970	29,371	513,021	473,179	1,015,571
	1957	674	59,648	246,213	29,046	520,318	513,337	1,062,701
	1958	660	52,856	228,600	25,676	471,241	480,573	977,490
Sub-total.....	1946	743	61,641	107,457	11,929	191,340	191,616	394,885
	1956	901	73,973	281,398	31,732	598,119	549,362	1,179,213
	1957	908	72,094	288,094	31,489	599,327	596,809	1,227,625
	1958	899	65,320	272,426	28,237	555,817	558,484	1,142,538

PRINCIPAL STATISTICS OF MANUFACTURING, ONTARIO, 1946 AND 1956 TO 1958—Continued

COUNTIES AND REGIONS								
	Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Net Value of Products ¹	Gross Value of Products ²	
	No.	No.			(Thousands of Dollars)			
NIAGARA—Continued								
B—Niagara								
Haldimand.....	1946 56	1,443	1,966	314	7,253	5,028	12,595	
	1956 57	1,901	5,346	739	17,858	11,677	30,274	
	1957 60	1,899	5,326	728	16,143	11,924	28,795	
	1958 54	1,872	5,602	866	17,433	13,792	32,091	
Lincoln.....	1946 184	12,229	20,916	1,653	35,265	36,094	73,012	
	1956 212	16,070	59,752	4,513	102,153	103,685	210,351	
	1957 229	15,750	61,135	4,722	103,496	106,791	215,009	
	1958 220	14,457	59,900	4,639	102,971	110,594	218,204	
Welland.....	1946 259	21,113	40,106	12,388	130,083	109,540	252,011	
	1956 305	26,012	106,702	23,686	379,916	207,158	610,760	
	1957 326	26,373	112,868	24,769	414,932	244,036	683,737	
	1958 313	22,222	97,436	20,549	312,610	208,318	541,477	
Sub-total.....	1946 499	34,785	62,988	14,355	172,601	150,662	337,618	
	1956 574	43,983	171,800	28,938	499,927	322,520	851,385	
	1957 615	44,022	179,329	30,219	534,571	362,751	927,541	
	1958 587	38,551	162,938	26,054	433,014	332,704	791,772	
TOTAL, NIAGARA.....	1946 1,242	96,426	170,445	26,284	363,941	342,278	732,503	
	1956 1,475	117,956	453,198	60,670	1,098,046	871,882	2,030,598	
	1957 1,523	116,116	467,423	61,708	1,133,898	959,560	2,155,166	
	1958 1,486	103,871	435,364	54,291	988,831	891,188	1,934,310	
LAKE ERIE								
Elgin.....	1946 98	2,210	3,075	286	10,268	6,163	16,717	
	1956 98	3,153	9,539	676	33,641	20,974	55,291	
	1957 105	3,579	11,412	721	41,999	26,512	69,232	
	1958 103	3,259	10,870	704	49,990	24,879	75,573	
Middlesex.....	1946 360	15,965	25,426	1,467	49,364	51,684	102,515	
	1956 401	19,268	63,888	3,520	154,001	141,181	298,702	
	1957 410	19,893	69,635	3,713	165,206	150,952	319,871	
	1958 405	19,524	71,523	3,808	159,828	148,462	312,098	
Norfolk.....	1946 74	2,031	2,837	230	24,426	8,737	33,393	
	1956 93	2,235	6,603	498	43,899	14,999	59,396	
	1957 96	2,118	6,861	511	45,273	12,700	58,490	
	1958 94	2,260	7,693	771	52,283	15,175	68,229	
Oxford.....	1946 179	6,019	8,715	953	30,144	18,442	49,539	
	1956 189	7,307	22,256	2,343	67,044	40,686	110,073	
	1957 193	7,168	23,387	4,086	70,809	48,575	123,470	
	1958 188	6,910	23,298	4,695	81,147	48,335	134,177	
TOTAL, LAKE ERIE.....	1946 711	26,225	40,053	2,936	114,202	85,026	202,164	
	1956 781	31,963	102,286	7,037	298,585	217,840	523,462	
	1957 804	32,758	111,295	9,037	323,287	238,739	571,063	
	1958 790	31,953	113,384	9,978	343,248	236,851	590,077	
LAKE ST. CLAIR								
A—Border								
Essex.....	1946 350	34,383	65,341	5,062	163,065	118,933	287,060	
	1956 505	39,181	152,841	10,183	372,611	309,170	691,964	
	1957 490	35,037	142,074	10,007	345,942	286,938	642,887	
	1958 486	28,114	123,673	9,202	293,763	249,437	552,402	
Kent.....	1946 157	6,072	9,862	1,350	31,504	18,640	51,494	
	1956 197	7,499	26,282	2,605	97,068	44,787	144,460	
	1957 201	7,003	24,923	2,738	94,436	42,922	140,096	
	1958 199	6,868	24,748	3,019	92,962	44,826	140,807	
Sub-total.....	1946 507	40,455	75,203	6,412	194,569	137,573	338,554	
	1956 702	46,680	179,123	12,788	469,679	353,957	836,424	
	1957 691	42,040	166,997	12,745	440,378	329,860	782,983	
	1958 685	34,982	148,421	12,221	386,725	294,263	693,209	
B—Lambton								
Lambton.....	1946 124	7,265	13,926	5,817	56,414	36,940	99,171	
	1956 142	9,398	38,709	19,704	231,023	181,816	432,543	
	1957 139	9,243	43,170	22,517	238,522	169,993	431,032	
	1958 132	8,984	43,833	27,415	249,022	167,069	443,506	
Sub-total.....	1946 124	7,265	13,926	5,817	56,414	36,940	99,171	
	1956 142	9,398	38,709	19,704	231,023	181,816	432,543	
	1957 139	9,243	43,170	22,517	238,522	169,993	431,032	
	1958 132	8,984	43,833	27,415	249,022	167,069	443,506	
TOTAL, LAKE ST. CLAIR.....	1946 631	47,720	89,129	12,229	250,983	174,513	437,725	
	1956 844	56,078	217,832	32,492	700,702	535,773	1,268,967	
	1957 830	51,283	210,167	35,262	678,900	499,853	1,214,015	
	1958 817	43,966	192,254	39,636	635,747	461,332	1,136,715	

PRINCIPAL STATISTICS OF MANUFACTURING, ONTARIO, 1946 AND 1956 TO 1958—Continued

COUNTIES AND REGIONS

		Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Net Value of Products ¹	Gross Value of Products ²
		No.	No.					
(Thousands of Dollars)								
UPPER GRAND RIVER								
Huron	1946	142	1,827	2,349	405	14,825	4,831	20,061
	1956	129	1,701	4,071	494	12,712	7,659	20,865
	1957	143	1,880	4,934	591	15,898	9,925	26,414
	1958	138	1,864	5,239	591	16,326	10,326	27,243
Perth	1946	168	5,280	8,134	1,174	18,935	14,040	34,149
	1956	151	5,456	16,781	2,394	38,675	31,235	72,304
	1957	162	5,517	17,650	2,432	42,254	31,823	76,509
	1958	161	5,133	17,019	2,652	43,605	32,999	79,256
Waterloo	1946	455	28,608	44,146	2,417	89,293	85,818	177,528
	1956	555	32,469	104,379	5,330	210,255	208,252	423,837
	1957	563	32,653	108,727	5,774	220,407	220,260	446,441
	1958	535	31,215	108,506	5,460	225,962	221,749	453,171
Wellington	1946	199	7,666	11,786	841	23,721	20,530	45,092
	1956	215	8,673	28,269	1,854	55,506	49,917	107,277
	1957	232	8,720	29,821	1,956	55,816	55,145	112,917
	1958	230	8,560	30,490	2,241	59,367	56,382	117,990
TOTAL, UPPER GRAND RIVER	1946	964	43,381	66,415	4,837	146,774	125,219	276,830
	1956	1,050	48,299	153,500	10,072	317,148	297,063	624,283
	1957	1,100	48,770	161,132	10,753	334,375	317,153	662,281
	1958	1,064	46,772	161,254	10,944	345,260	321,456	677,660
GEORGIAN BAY								
A—Blue Water								
Bruce	1946	150	2,509	3,294	217	8,251	5,717	14,185
	1956	139	2,167	5,144	372	11,049	8,775	20,196
	1957	150	2,076	5,115	427	11,994	7,685	20,106
	1958	151	2,184	5,440	515	13,804	8,522	22,841
Dufferin	1946	31	300	348	36	1,697	802	2,535
	1956	33	251	540	88	1,934	842	2,864
	1957	35	249	589	90	1,928	1,025	3,043
	1958	42	259	686	98	2,291	1,141	3,530
Grey	1946	192	5,335	7,319	417	12,328	11,737	24,482
	1956	176	4,797	13,683	767	23,462	23,488	47,717
	1957	187	4,876	14,197	797	23,891	25,344	50,032
	1958	182	4,359	12,628	732	22,830	23,701	47,263
Simcoe	1946	197	5,316	7,461	464	15,357	13,115	28,936
	1956	239	7,032	20,191	1,212	42,852	36,384	80,448
	1957	270	7,956	24,150	1,394	50,108	46,217	97,719
	1958	271	7,787	24,669	1,425	50,991	46,474	98,890
Sub-total	1946	570	13,460	18,422	1,134	37,633	31,371	70,138
	1956	587	14,247	39,558	2,439	79,297	69,489	151,225
	1957	642	15,157	44,051	2,708	87,921	80,271	170,900
	1958	646	14,589	43,423	2,770	89,916	79,838	172,524
B—Highlands								
Muskoka	1946	67	1,262	1,646	98	4,688	3,372	8,158
	1956	75	974	2,538	192	5,810	4,104	10,106
	1957	85	1,008	2,813	241	6,074	4,421	10,736
	1958	79	893	2,503	229	5,516	3,943	9,688
Parry Sound	1946	76	873	1,174	100	2,885	2,995	5,980
	1956	92	1,205	3,173	328	6,429	7,751	14,508
	1957	89	1,089	3,103	342	6,645	7,997	14,984
	1958	76	995	3,153	376	6,342	7,366	14,084
Sub-total	1946	143	2,135	2,820	198	7,573	6,367	14,138
	1956	167	2,179	5,711	520	12,239	11,855	24,614
	1957	174	2,097	5,916	583	12,719	12,418	25,720
	1958	155	1,888	5,656	605	11,858	11,309	23,772
TOTAL, GEORGIAN BAY	1946	713	15,595	21,242	1,332	45,206	37,738	84,276
	1956	754	16,426	45,269	2,959	91,536	81,344	175,839
	1957	816	17,254	49,967	3,291	100,640	92,689	196,620
	1958	801	16,477	49,079	3,375	101,774	91,147	196,296

PRINCIPAL STATISTICS OF MANUFACTURING, ONTARIO, 1946 AND 1956 TO 1958—Continued

COUNTIES AND REGIONS

		Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Net Value of Products ¹	Gross Value of Products ²
		No.	No.					
					(Thousands of Dollars)			
NORTHEASTERN ONTARIO								
A—Clay Belt								
Cochrane.....	1946	111	3,570	7,728	1,767	18,303	25,151	45,221
	1956	90	4,417	17,767	3,592	37,148	55,357	96,097
	1957	93	4,238	18,300	3,704	37,973	53,455	95,132
	1958	89	4,062	17,929	3,611	37,740	48,087	89,438
Nipissing.....	1946	68	1,271	1,835	97	4,286	3,416	7,799
	1956	81	2,050	6,441	710	13,042	13,600	27,352
	1957	88	2,458	8,729	1,282	14,344	14,428	30,054
	1958	80	2,303	8,600	1,230	14,043	15,355	30,628
Timiskaming.....	1946	88	1,177	1,590	97	3,392	2,792	6,281
	1956	85	1,374	3,947	326	7,079	6,148	13,553
	1957	89	1,363	4,261	354	7,814	7,089	15,257
	1958	86	1,169	3,759	334	6,731	6,592	13,657
Sub-total.....	1946	267	6,018	11,153	1,961	25,981	31,359	59,301
	1956	255	7,841	28,155	4,628	57,269	75,105	137,002
	1957	270	8,059	31,290	5,340	60,131	74,972	140,443
	1958	255	7,534	30,288	5,175	58,514	70,034	133,723
Nickel Range								
Manitoulin.....	1946	25	84	65	12	355	144	511
	1956	26	82	128	30	469	246	745
	1957	22	71	127	30	497	240	767
	1958	24	84	198	36	738	344	1,118
Sudbury.....	1946	134	6,376	12,697	6,902	57,534	13,263	77,699
	1956	134	10,759	45,316	17,639	126,443	241,681	385,763
	1957	131	11,324	51,140	18,277	132,825	234,299	385,401
	1958	128	9,228	42,988	13,781	93,791	166,986	274,558
Sub-total.....	1946	159	6,460	12,752	6,914	57,889	13,407	78,210
	1956	160	10,841	45,444	17,669	126,912	241,927	386,508
	1957	153	11,395	51,267	18,307	133,322	234,539	386,168
	1958	152	9,312	43,186	13,817	94,529	167,330	275,676
B—Sault								
Algoma.....	1946	92	5,567	11,235	3,603	28,389	21,161	53,153
	1956	108	10,026	43,741	9,387	85,158	86,713	181,258
	1957	113	10,283	48,174	8,703	100,332	78,073	187,108
	1958	105	9,722	45,893	8,063	91,854	84,159	184,076
Sub-total.....	1946	92	5,567	11,235	3,603	28,389	21,161	53,153
	1956	108	10,026	43,741	9,387	85,158	86,713	181,258
	1957	113	10,283	48,174	8,703	100,332	78,073	187,108
	1958	105	9,722	45,893	8,063	91,854	84,159	184,076
TOTAL, NORTHEASTERN ONTARIO								
	1946	518	18,045	35,140	12,478	112,259	65,927	190,664
	1956	524	28,708	117,340	31,684	269,339	403,745	704,768
	1957	536	29,737	130,731	32,350	293,785	387,584	713,719
	1958	512	26,568	119,367	27,055	244,897	321,523	593,475
LAKEHEAD-NORTHWESTERN ONTARIO								
Kenora.....	1946	64	1,686	3,193	1,025	21,776	8,332	31,133
	1956	77	2,193	8,158	1,758	23,491	17,790	43,039
	1957	73	2,450	9,958	3,232	27,272	19,244	50,198
	1958	73	2,399	10,547	3,335	30,285	22,649	56,269
Rainy River.....	1946	39	1,107	2,120	808	4,432	4,510	9,750
	1956	44	1,078	4,594	1,323	9,497	10,298	21,118
	1947	46	1,018	4,207	1,264	9,315	8,993	19,572
	1958	43	978	4,116	1,279	9,280	8,388	19,847
Thunder Bay.....	1946	164	6,176	12,815	3,265	24,491	26,459	54,215
	1956	211	8,477	33,435	10,067	77,693	82,295	170,055
	1957	216	8,568	35,311	10,891	85,731	81,471	178,093
	1958	208	8,335	35,050	10,995	92,496	81,166	184,657
TOTAL, LAKEHEAD-NORTHWESTERN ONTARIO								
	1946	267	8,969	18,128	5,098	50,699	39,301	95,098
	1956	332	11,748	46,187	13,148	110,681	110,383	234,212
	1957	335	12,036	49,476	15,387	122,768	109,708	247,863
	1958	324	11,712	49,713	15,609	132,061	112,203	259,873
GRAND TOTAL, ONTARIO								
	1946	11,424	498,120	845,217	93,338	2,001,901	1,659,285	3,754,524
	1956	13,215	641,190	2,310,634	229,357	5,683,753	4,868,570	10,655,099
	1957	13,580	644,245	2,430,676	246,828	5,827,318	5,047,711	11,078,593
	1958	13,276	607,352	2,418,655	241,900	5,704,319	4,914,074	10,864,028

n.a. Not available.

¹County figures obtained by deducting the cost of fuel, electricity and materials used from the gross value of products. Inventory changes, not available on a county basis, are taken into consideration in the Provincial figure.

²Since 1952, the basis of collection has been selling value of factory shipments.

Note: Due to rounding, county and regional figures may not add to Provincial totals.

Source: Dominion Bureau of Statistics, *The Manufacturing Industries of Canada, Geographical Distribution*.

PRINCIPAL STATISTICS OF MANUFACTURING BY INDUSTRIAL GROUPS, ONTARIO, 1958

	REGIONS						
	Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Value Added by Manufacture	Selling Value of Factory Shipments
	No.	No.			(Thousands of Dollars)		
EASTERN ONTARIO							
Foods and Beverages.....	425	6,068	20,691	3,483	92,744	48,611	144,838
Leather Products.....	8	639	1,810	56	2,582	2,662	5,300
Textile Products.....	23	5,857	21,790	2,818	34,109	48,815	85,742
Clothing.....	28	1,451	3,551	94	5,157	6,512	11,763
Knitting Mills.....	8	443	1,083	34	1,817	1,634	3,485
Wood Products.....	307	3,132	8,572	530	15,540	13,270	29,340
Paper Products.....	12	3,609	15,198	3,939	26,660	30,024	60,623
Printing, Publishing and Allied Industries.....	190	3,662	13,567	284	10,630	25,908	36,822
Iron and Steel Products.....	77	2,992	11,057	509	14,377	22,024	36,910
Transportation Equipment.....	15	986	4,037	225	3,932	5,199	9,356
Non-Ferrous Metal Products.....	21	2,606	10,336	1,410	33,739	17,406	52,555
Electrical Apparatus and Supplies	17	2,898	10,735	380	25,625	23,243	49,248
Non-Metallic Mineral Products..	38	977	3,373	676	4,205	6,534	11,415
Chemicals and Allied Products...	27	2,295	9,107	2,415	21,449	28,201	52,065
Miscellaneous Manufacturing....	38	1,425	5,105	142	5,505	10,146	15,793
TOTAL.....	1,234	39,040	140,013	16,997	298,070	290,192	605,259
LAKE ONTARIO							
Foods and Beverages.....	326	4,864	14,496	1,910	68,085	41,689	111,684
Leather Products.....	10	919	2,383	106	3,840	3,480	7,426
Textile Products.....	17	1,708	5,606	584	8,960	7,958	17,502
Clothing.....	8	339	737	14	1,341	1,107	2,462
Wood Products.....	193	1,815	4,791	255	8,004	7,642	15,901
Paper Products.....	9	840	3,417	1,049	8,541	8,021	17,611
Printing, Publishing and Allied Industries.....	61	559	1,716	47	1,061	3,012	4,120
Iron and Steel Products.....	42	4,190	16,795	715	21,891	32,875	55,481
Transportation Equipment.....	12	465	1,828	59	2,011	1,954	4,024
Non-Ferrous Metal Products.....	9	921	3,284	476	84,209	5,866	90,551
Electrical Apparatus and Supplies	10	5,792	34,555	624	32,560	47,222	80,406
Non-Metallic Mineral Products...	31	1,035	4,052	2,574	4,565	9,579	16,718
Chemicals and Allied Products....	18	531	2,253	534	5,962	3,566	10,062
Miscellaneous Manufacturing....	20	1,224	4,202	129	4,302	6,740	11,171
Other Major Groups.....	5	844	2,988	209	4,376	5,979	10,564
TOTAL.....	771	26,046	103,104	9,285	259,709	186,689	455,683
METROPOLITAN							
Foods and Beverages.....	673	30,550	116,012	9,210	463,895	256,241	729,346
Tobacco Products.....	4	551	2,260	29	4,858	3,396	8,283
Rubber Products.....	21	5,787	24,745	1,730	45,388	53,078	100,196
Leather Products.....	109	5,135	15,429	722	29,755	23,939	54,416
Textile Products.....	197	6,589	20,770	1,142	44,569	30,725	76,436
Clothing.....	555	16,786	47,201	607	69,146	74,386	144,139
Knitting Mills.....	56	2,779	7,340	215	14,996	11,174	26,385
Wood Products.....	554	9,926	33,740	1,288	62,652	55,336	119,276
Paper Products.....	150	11,811	47,504	3,202	111,511	78,565	193,278
Printing, Publishing and Allied Industries.....	967	23,441	104,740	1,958	99,454	179,213	280,625
Iron and Steel Products.....	730	38,327	164,723	6,232	256,421	287,542	550,195
Transportation Equipment.....	89	39,301	184,771	6,171	541,890	355,083	903,144
Non-Ferrous Metal Products.....	190	8,730	34,411	2,195	85,668	58,136	145,999
Electrical Apparatus and Supplies	201	22,446	90,535	2,760	164,015	161,375	328,150
Non-Metallic Mineral Products...	182	7,731	33,909	7,214	46,599	76,638	130,451
Petroleum Products.....	16	3,416	18,620	4,479	83,454	36,440	124,373
Chemicals and Allied Products...	327	12,800	52,418	3,987	158,184	170,473	332,644
Miscellaneous Manufacturing....	457	13,805	49,756	1,640	72,265	93,437	167,342
TOTAL.....	5,478	259,911	1,048,883	54,781	2,354,720	2,005,177	4,414,678

PRINCIPAL STATISTICS OF MANUFACTURING BY INDUSTRIAL GROUPS, ONTARIO, 1958—Continued

	REGIONS						
	Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Value Added by Manufacture ¹	Selling Value of Factory Shipments
	No.	No.				(Thousands of Dollars)	
NIAGARA							
Foods and Beverages.....	347	10,718	34,179	3,217	145,612	78,960	227,789
Rubber Products.....	8	2,049	8,488	529	18,546	30,935	50,010
Leather Products.....	15	706	1,703	44	2,855	2,293	5,192
Textile Products.....	57	5,682	16,823	1,010	29,339	30,786	61,135
Clothing.....	25	1,209	2,913	42	4,258	4,255	8,555
Knitting Mills.....	15	2,330	5,733	234	8,929	9,437	18,600
Wood Products.....	139	1,212	3,827	204	4,917	5,292	10,413
Paper Products.....	41	6,040	26,416	4,793	64,967	54,014	123,774
Printing, Publishing and Allied Industries.....	180	2,616	9,878	218	7,924	17,617	25,759
Iron and Steel Products.....	292	36,558	172,790	22,435	336,155	347,732	706,323
Transportation Equipment.....	25	8,738	39,980	2,514	80,589	75,897	159,000
Non-Ferrous Metal Products.....	43	2,887	12,533	2,449	100,970	26,590	130,009
Electrical Apparatus and Supplies	38	10,696	47,181	1,219	54,684	82,967	138,870
Non-Metallic Mineral Products...	94	5,473	23,308	6,417	30,905	45,174	82,496
Petroleum Products.....	6	923	3,974	2,485	25,567	7,429	35,481
Chemicals and Allied Products...	69	4,014	19,242	6,258	63,164	60,898	130,320
Miscellaneous Manufacturing....	92	2,020	6,397	222	9,449	10,913	20,584
TOTAL.....	1,486	103,871	435,365	54,291	988,832	891,188	1,934,310
LAKE ERIE							
Foods and Beverages.....	250	6,796	22,937	2,503	94,650	61,651	158,804
Leather Products.....	11	1,190	3,286	113	5,359	5,458	10,930
Textile Products.....	14	788	2,123	179	8,798	2,660	11,637
Clothing.....	9	285	679	12	1,357	1,765	3,134
Knitting Mills.....	17	1,900	4,791	188	7,462	8,149	15,799
Wood Products.....	105	1,919	5,796	284	10,369	9,612	20,265
Paper Products.....	11	1,113	3,964	166	10,674	7,589	18,429
Printing, Publishing and Allied Industries.....	102	1,917	7,665	172	6,387	12,127	18,686
Iron and Steel Products.....	118	5,938	23,727	1,201	51,215	44,046	96,462
Transportation Equipment.....	16	3,129	13,038	496	46,196	26,172	72,864
Non-Ferrous Metal Products.....	9	904	3,579	205	5,135	5,324	10,664
Electrical Apparatus and Supplies	17	2,381	8,334	559	18,164	13,585	31,308
Non-Metallic Mineral Products...	31	1,161	4,617	3,338	4,832	13,127	21,297
Chemicals and Allied Products...	33	633	2,371	148	7,928	9,285	17,361
Miscellaneous Manufacturing....	40	624	1,992	98	2,893	3,636	6,627
Other Major Groups.....	7	1,275	4,487	317	62,829	12,665	75,811
TOTAL.....	790	31,953	113,384	9,978	343,248	236,851	590,078
LAKE ST. CLAIR							
Foods and Beverages.....	236	8,223	28,566	3,406	105,221	86,108	194,735
Textile Products.....	15	357	1,212	41	2,892	1,718	4,651
Clothing.....	10	278	656	12	928	1,056	1,996
Wood Products.....	91	653	1,882	134	3,221	2,989	6,344
Paper Products.....	4	196	794	35	2,632	1,561	4,228
Printing, Publishing and Allied Industries.....	95	1,155	4,424	113	2,860	7,951	10,924
Iron and Steel Products.....	139	5,473	23,552	1,286	33,501	44,035	78,822
Transportation Equipment.....	45	14,981	73,172	3,447	187,601	108,126	299,174
Non-Ferrous Metal Products.....	23	1,432	5,464	342	7,500	9,524	17,366
Electrical Apparatus and Supplies	6	120	488	21	713	691	1,425
Non-Metallic Mineral Products...	52	2,651	10,597	3,067	11,529	26,626	41,222
Chemicals and Allied Products...	39	5,118	26,127	15,275	68,162	75,474	158,911
Miscellaneous Manufacturing....	48	514	1,983	121	2,590	3,896	6,607
Other Major Groups.....	14	2,861	13,576	12,337	206,396	91,578	310,311
TOTAL.....	817	44,012	192,494	39,635	635,746	461,334	1,136,716

PRINCIPAL STATISTICS OF MANUFACTURING BY INDUSTRIAL GROUPS, ONTARIO, 1958—Continued

	REGIONS						
	Establishments	Employees	Payroll	Cost of Fuel and Electricity	Cost at Plant of Materials Used	Value Added by Manufacture ¹	Selling Value of Factory Shipments
	No.	No.			(Thousands of Dollars)		
UPPER GRAND RIVER							
Foods and Beverages.....	336	6,552	22,565	2,442	122,465	66,167	191,074
Rubber Products.....	10	4,753	17,861	1,204	30,799	44,618	76,621
Leather Products.....	43	3,376	9,857	230	13,590	15,353	29,173
Textile Products.....	42	3,523	10,884	682	21,684	18,148	40,514
Clothing.....	21	2,234	5,812	100	10,770	10,011	20,881
Knitting Mills.....	19	966	2,287	132	4,065	4,090	8,287
Wood Products.....	149	5,087	16,407	660	19,075	25,326	45,061
Printing, Publishing and Allied Industries.....	100	1,008	3,457	96	2,188	7,348	9,632
Iron and Steel Products.....	160	9,694	37,108	1,556	56,816	62,995	121,367
Transportation Equipment.....	20	1,571	6,054	268	8,299	8,960	17,527
Non-Ferrous Metal Products.....	17	524	2,009	96	2,595	3,377	6,068
Electrical Apparatus and Supplies	24	4,560	16,672	485	31,146	29,499	61,130
Non-Metallic Mineral Products...	35	951	3,596	2,520	2,402	11,458	16,380
Chemicals and Allied Products...	20	570	2,384	254	12,424	6,427	19,105
Miscellaneous Manufacturing....	56	1,043	3,161	150	3,934	5,405	9,489
Other Major Groups.....	12	360	1,140	67	3,007	2,277	5,351
TOTAL.....	1,064	46,772	161,254	10,944	345,261	321,456	677,661
GEORGIAN BAY							
Foods and Beverages.....	301	2,189	5,956	1,130	38,443	11,710	51,283
Leather Products.....	11	860	2,454	145	5,067	3,648	8,860
Textile Products.....	9	211	507	45	948	653	1,646
Clothing.....	11	489	887	10	2,191	1,116	3,317
Knitting Mills.....	6	262	539	36	615	898	1,549
Wood Products.....	251	4,377	11,915	575	16,262	17,846	34,683
Printing, Publishing and Allied Industries.....	64	768	2,342	56	1,377	4,119	5,552
Iron and Steel Products.....	43	2,225	7,390	421	9,282	15,130	24,833
Transportation Equipment.....	31	1,616	5,749	164	8,146	8,136	16,446
Electrical Apparatus and Supplies	7	1,098	3,723	153	4,964	12,397	17,514
Non-Metallic Mineral Products...	31	293	744	109	1,172	1,350	2,631
Chemicals and Allied Products...	10	727	2,669	292	5,819	6,539	12,650
Miscellaneous Manufacturing Industries.....	22	1,076	3,025	146	3,975	4,896	9,017
Other Major Groups.....	4	286	1,177	92	3,514	2,709	6,315
TOTAL.....	801	16,477	49,077	3,375	101,775	91,146	196,295
NORTHEASTERN ONTARIO							
Foods and Beverages.....	145	1,730	5,847	970	15,474	12,576	29,020
Wood Products.....	222	3,423	10,665	674	22,742	18,960	42,376
Paper Products.....	8	5,129	24,558	6,436	47,175	63,330	116,941
Printing, Publishing and Allied Industries.....	43	732	2,491	83	1,076	4,748	5,907
Iron and Steel Products.....	33	7,394	36,547	5,618	62,789	61,838	130,245
Transportation Equipment.....	3	21	71	2	46	90	138
Non-Metallic Mineral Products...	24	184	659	108	1,348	1,054	2,510
Chemicals and Allied Products...	7	615	2,886	697	6,333	9,170	16,200
Miscellaneous Manufacturing....	12	56	172	11	87	268	366
Other Major Groups.....	14	7,284	35,470	12,455	87,827	149,489	249,771
TOTAL.....	511	26,568	119,368	27,055	244,897	321,523	593,475
LAKEHEAD-NORTHWESTERN ONTARIO							
Foods and Beverages.....	91	1,155	4,192	727	21,648	10,818	33,193
Wood Products.....	146	950	2,483	173	7,586	4,498	12,257
Paper Products.....	12	6,852	32,580	13,981	80,916	80,810	175,707
Printing, Publishing and Allied Industries.....	27	351	1,204	35	629	2,385	3,049
Iron and Steel Products.....	10	188	769	30	551	1,509	2,090
Transportation Equipment.....	9	1,895	7,360	210	13,079	9,778	23,067
Non-Metallic Mineral Products...	11	113	414	124	1,232	872	2,228
Chemicals and Allied Products...	5	24	103	29	775	454	1,258
Miscellaneous Manufacturing....	6	26	83	6	31	157	194
Other Major Groups.....	7	158	525	295	5,616	918	6,829
TOTAL.....	324	11,712	49,714	15,609	132,062	112,202	259,873

¹Value added by manufacture is calculated for purposes of this table by deducting the cost of fuel, electricity and materials used from the selling value of factory shipments. Since inventory changes by industrial groups are not available for individual regions it is not possible to take such changes into account, as is done for Provincial statistics on value added by manufacture or net value of products.

Note: Due to rounding, figures for industrial groups may not add to the regional totals.

Source: Memorandum from the Dominion Bureau of Statistics.

Construction and Housing

Dwelling Units Started and Completed, Centres of 5,000 and Over

Ontario's five metropolitan areas accounted for 54 per cent of the Province's housing starts in 1960. In all five, however, fewer homes were started than in the previous year. Metropolitan Toronto was responsible for 34 per cent of dwelling units started in the Province, and within the metropolitan area the number of starts was greatest in North York Township, followed by Scarborough Township, Etobicoke Township, the City of Toronto and East York Township.

The largest number of starts in other centres having a population of 5,000 and over took place in Kitchener with 1,197 units. Brampton followed with 534, Oshawa 526, Sarnia 419, Peterborough 350, Sudbury 310 and Guelph 306. The greatest percentage increase in the

number of housing starts between 1959 and 1960 occurred in Sudbury with 184 per cent. Perth and Brampton were next with increases of 157 and 146 per cent, respectively.

In 1959, completions in metropolitan areas represented 55 per cent of all dwelling units completed in Ontario. Metropolitan Toronto accounted for 33 per cent of the Provincial total, its completions being confined mostly to North York Township, Scarborough Township, the City of Toronto, Etobicoke Township and East York Township. Kitchener (1,168) had the greatest number of completions in other urban centres, followed by Windsor (496), Oshawa (445), Sarnia (419), Brantford (414) and Guelph (347).

The most notable percentage increases in completions occurred in Newmarket (163 per cent), Brantford (114 per cent) and Brockville (110 per cent).

DWELLING UNITS STARTED AND COMPLETED, ONTARIO, 1951 AND 1958 TO 1960

	CENTRES 5,000 AND OVER							
	Started				Completed			
	1951	1958	1959	1960	1951	1958	1959	1960
EASTERN ONTARIO								
A—Ottawa Valley								
Arnprior.....	n.a.	23	33	8	n.a.	25	30	27
Hawkesbury.....	75	40	28	30	51	42	30	32
Ottawa (metropolitan area).....	1,738	4,950	4,546	4,044	2,343	4,354	4,715	3,990
Ottawa (City).....	n.a.	4,004	3,453	2,776	n.a.	3,479	3,589	2,794
Eastview.....	n.a.	329	273	201	n.a.	333	323	203
Rockcliffe Park.....	n.a.	5	15	9	n.a.	12	10	12
Gloucester Township.....	n.a.	154	279	188	n.a.	155	259	216
Nepean Township.....	n.a.	458	526	870	n.a.	375	534	765
Pembroke.....	74	155	82	43	100	152	114	40
Perth.....	n.a.	21	7	18	n.a.	16	19	9
Renfrew.....	60	18	14	14	46	22	21	16
Smiths Falls.....	27	36	38	8	27	29	41	20
B—Upper St. Lawrence								
Brockville.....	24	116	228	101	21	130	120	253
Cornwall.....	89	412	217	247	148	349	299	171
Kingston.....	166	359	323	273	177	224	270	361
LAKE ONTARIO								
Belleville.....	35	28	262	129	51	39	243	186
Bowmanville.....	n.a.	25	26	31	n.a.	28	26	23
Cobourg.....	28	74	79	41	42	49	62	79
Lindsay.....	25	51	62	31	33	50	57	48
Peterborough.....	203	378	204	350	285	373	282	222
Port Hope.....	31	49	57	20	45	50	54	51
Trenton.....	16	94	81	68	23	101	83	69
METROPOLITAN								
Ajax.....	n.a.	1	1	6	n.a.	139	1	—
Brampton.....	105	238	652	245	88	277	332	291
Georgetown.....	n.a.	426	137	30	n.a.	384	245	48
Newmarket.....	n.a.	17	81	12	n.a.	32	22	58
Oakville.....	n.a.	105	37	21	n.a.	36	83	44
Oshawa.....	416	908	491	526	341	735	664	445
Port Credit.....	n.a.	67	20	15	n.a.	62	38	19
Richmond Hill.....	n.a.	330	246	50	n.a.	567	271	139

DWELLING UNITS STATED AND COMPLETED, ONTARIO, 1951 AND 1958 TO 1960—Continued

CENTRES 5,000 AND OVER

	Started				Completed			
	1951	1958	1959	1960	1951	1958	1959	1960
METROPOLITAN—Continued								
Toronto (Metropolitan).....	9,549	24,301	18,774	14,180	13,026	23,125	18,364	15,666
Toronto (City).....	n.a.	3,666	3,084	1,753	n.a.	5,430	3,049	2,765
Leaside.....	n.a.	367	279	268	n.a.	—	367	279
Mimico.....	n.a.	618	694	365	n.a.	561	565	42
New Toronto.....	n.a.	598	125	12	n.a.	509	246	12
Weston.....	n.a.	61	189	152	n.a.	134	77	127
Forest Hill.....	n.a.	298	238	332	n.a.	14	280	348
Long Branch.....	n.a.	82	68	91	n.a.	72	88	71
Swansea.....	n.a.	160	201	13	n.a.	214	81	171
Etobicoke Township.....	n.a.	4,160	3,231	2,303	n.a.	4,121	2,805	2,373
Scarborough Township.....	n.a.	5,141	4,091	2,693	n.a.	4,868	4,030	3,020
E. York Township.....	n.a.	806	1,415	575	n.a.	315	829	1,020
N. York Township.....	n.a.	6,861	4,580	5,217	n.a.	5,366	5,246	4,365
York Township.....	n.a.	1,483	579	406	n.a.	1,521	701	413
Whitby.....	75	486	146	60	73	552	126	111
NIAGARA								
A—Burlington								
Brantford.....	301	169	217	534	358	126	193	414
Hamilton (metropolitan area).....	1,139	4,092	3,784	2,682	1,757	3,649	3,378	3,718
Hamilton (City) ¹	n.a.	1,671	2,389	1,889	n.a.	1,691	1,498	2,652
Burlington ²	n.a.	1,551	785	323	n.a.	1,192	1,191	510
Dundas.....	30	63	76	55	54	75	55	65
Stoney Creek.....	n.a.	69	23	167	n.a.	90	37	89
Waterdown.....	n.a.	6	3	5	n.a.	3	6	6
Barton Township ³	n.a.	72	23	1	n.a.	45	61	3
Ancaster Township ³	n.a.	299	174	83	n.a.	260	223	117
E. Flamborough Township.....	n.a.	40	45	34	n.a.	30	38	57
W. Flamborough Township.....	n.a.	123	131	53	n.a.	93	99	118
Nelson Township ²	n.a.	4	4	4	n.a.	4	4	4
Saltfleet Township ³	n.a.	198	135	73	n.a.	170	170	104
Parls.....	n.a.	28	24	17	n.a.	13	31	22
B—Niagara								
Fort Erie.....	19	30	74	39	29	33	61	47
Merriton.....	n.a.	139	102	41	n.a.	91	133	72
Niagara Falls.....	90	11	3	1	94	14	2	3
Port Colborne.....	49	42	69	63	39	60	63	66
St. Catharines.....	125	187	205	153	168	225	189	133
Thorold.....	53	35	45	12	38	42	36	30
Welland.....	67	61	100	48	75	70	75	78
LAKE ERIE								
Ingersoll.....	25	18	31	20	29	20	20	31
London (metropolitan area).....	1,003	2,544	2,456	1,840	1,261	2,039	2,150	2,263
London (City).....	n.a.	785	1,061	504	n.a.	583	794	820
London Township.....	n.a.	1,427	1,049	1,138	n.a.	1,181	1,081	1,114
Westminster Township.....	n.a.	332	346	198	n.a.	275	275	329
St. Thomas.....	118	61	67	35	16	96	69	40
Simcoe.....	51	21	31	23	64	20	22	30
Tillsonburg.....	n.a.	26	33	26	n.a.	33	26	30
Woodstock.....	104	166	211	108	106	162	181	150
LAKE ST. CLAIR								
A—Border								
Chatham.....	101	50	96	90	98	126	78	80
Leamington.....	23	44	54	33	26	72	36	47
Wallaceburg.....	n.a.	18	39	21	n.a.	39	41	21
Windsor (metropolitan area).....	728	1,122	723	496	940	1,012	1,044	502
Windsor (City).....	n.a.	336	114	126	n.a.	205	328	67
LaSalle.....	n.a.	5	5	5	n.a.	11	5	5
Riverside.....	n.a.	323	248	100	n.a.	337	248	163
Tecumseh.....	n.a.	13	11	16	n.a.	22	13	8
St. Clair Beach.....	n.a.	38	13	2	n.a.	28	31	3
E. Sandwich Township.....	n.a.	112	58	50	n.a.	148	108	26
S. Sandwich Township.....	n.a.	18	20	18	n.a.	22	14	18
W. Sandwich Township.....	n.a.	277	259	184	n.a.	239	302	217
B—Lambton								
Sarnia.....	463	444	619	419	409	450	496	493

CENTRES 5,000 AND OVER								
	Started				Completed			
	1951	1958	1959	1960	1951	1958	1959	1960
UPPER GRAND RIVER								
Galt.....	101	220	223	110	112	155	195	153
Goderich.....	n.a.	30	42	26	n.a.	16	53	34
Guelph.....	94	510	388	306	114	321	492	347
Kitchener.....	669	838	961	1,197	722	655	994	1,168
Preston.....	40	96	111	73	46	90	109	87
Stratford.....	28	81	60	54	46	91	38	53
Waterloo.....	n.a.	289	185	277	n.a.	243	202	273
GEORGIAN BAY								
A—Blue Water								
Barrie.....	100	258	272	109	96	322	250	179
Collingwood.....	18	67	31	28	8	48	55	28
Midland.....	21	67	83	31	18	50	71	52
Orillia.....	46	69	162	62	54	66	81	152
Owen Sound.....	49	61	65	57	61	70	58	57
Penetanguishene.....	n.a.	16	11	10	n.a.	17	12	11
B—Highlands								
Parry Sound.....	15	45	23	33	17	29	36	34
NORTHEASTERN ONTARIO								
A—Clay Belt								
Kapuskasing.....	n.a.	23	37	49	n.a.	31	36	32
North Bay.....	112	141	162	86	107	181	134	155
Sturgeon Falls.....	n.a.	32	27	22	n.a.	15	40	19
Timmins.....	4	51	121	73	7	33	51	109
B—Nickel Range								
Sudbury ¹	250	133	109	310	322	141	101	351
C—Sault								
Sault Ste. Marie.....	460	327	373	266	451	248	324	342
LAKEHEAD-NORTHWESTERN ONTARIO								
Fort Frances.....	20	22	29	15	19	24	28	21
Fort William.....	82	637	377	124	105	410	529	200
Kenora.....	22	34	26	19	15	58	26	21
Port Arthur.....	134	431	407	257	106	381	408	308
TOTAL, URBAN CENTRES OF								
5,000 AND OVER.....	19,490	47,494	40,140	30,896	24,907	44,029	39,259	34,874
TOTAL, ONTARIO.....	27,349	63,753	54,158	42,282	31,732	59,551	54,281	46,982

n.a. Not available.

¹That part of metropolitan Ottawa in the Province of Ontario.

²In Metropolitan Region.

³Barton Township and part of Ancaster, Glanford, and Saltfleet townships incorporated in Hamilton city, January 1, 1960.

⁴Nelson Township annexed to Burlington January 1, 1958.

⁵LaSalle annexed to Sandwich West Township January 1, 1959.

⁶Frood Mines town, McKim Township, and part of Neelon township incorporated in Sudbury city, January 1, 1960.

Source: Dominion Bureau of Statistics, *New Residential Construction*.

Value of Building Permits Issued

The Metropolitan Region accounted for 48 per cent of the value of building permits issued in the Province in 1960 while the Niagara Region and Eastern Ontario each contributed around 13 per cent. Permits in these regions were valued at \$431 million, \$123 million and \$114 million, respectively. Between 1959 and 1960, two of the ten regions recorded increases, the most significant gain occurring in Lakehead-Northwestern Ontario, where the value of building permits issued rose by 8 per cent. The greatest increments in the period 1951 to 1960 took place in the Lakehead-Northwestern Ontario Region (242 per cent), followed by Upper Grand River (226 per cent), Georgian Bay (179 per cent) and Northeastern Ontario (133 per cent).

During 1960, the residential sector, despite a general regional decline, was responsible for approximately

one-half the aggregate in every region except Lakehead-Northwestern Ontario. The commercial, industrial, and institutional and government sectors occupied varying positions in the different regions, although institutional and government tended to be the most important, followed by commercial and industrial.

Six of the regions showed increases in institutional and government construction between 1959 and 1960. The largest increase occurred in Lakehead-Northwestern Ontario (169 per cent) followed by Upper Grand River with 81 per cent. The value of industrial construction rose in four of the regions during 1960. It more than doubled in the Niagara Region and increased by almost one-quarter in Eastern Ontario. In the same period, values rose to a level almost one-fifth more than that of 1959 in Metropolitan and were five per cent higher in Lakehead-Northwestern Ontario.

Two regions — Lakehead-Northwestern Ontario and Upper Grand River — recorded increases in commercial building permits in 1960. The more important of these took place in the Lakehead-Northwestern Ontario Region (37 per cent), while Upper Grand River increased by 24 per cent and Niagara remained unchanged from the previous record level of 1959.

In 1960, permit values in metropolitan areas were greatest in Toronto (\$333 million), followed by Ottawa (\$81 million), Hamilton (\$75 million) and London (\$31 million). In these four metropolitan areas, the residential sector was the most important and as in the case of the regions, accounted for about one-half of the total value of building permits issued.

VALUE OF BUILDING PERMITS ISSUED, ONTARIO, 1951 AND 1958 TO 1960

		REGIONS				Per Cent Change	
		1951	1958	1959	1960	1960/1951	1960/1959
EASTERN ONTARIO							
Residential.....	(\$000's)	21,854	72,258	67,286	63,413	190.2	-5.8
	%	(43.2)	(50.9)	(53.1)	(55.8)		
Industrial.....	(\$000's)	4,095	8,598	4,762	5,914	44.4	24.2
	%	(8.1)	(6.1)	(3.8)	(5.2)		
Commercial.....	(\$000's)	16,821	21,194	23,499	20,070	19.3	-14.6
	%	(33.2)	(14.9)	(18.5)	(17.7)		
Institutional and Government.....	(\$000's)	7,843	39,997	31,090	24,123	207.6	-22.4
	%	(15.5)	(28.1)	(24.5)	(21.3)		
Other.....	(\$000's)	27	58	67	45	66.7	-32.8
	%	*	*	(0.1)	*		
Total.....	(\$000's)	50,640	142,105	126,704	113,565	124.3	-10.4
	%	(100.0)	(100.0)	(100.0)	(100.0)		
LAKE ONTARIO							
Residential.....	(\$000's)	4,715	14,845	14,685	11,113	135.7	-24.3
	%	(49.4)	(53.1)	(47.5)	(52.5)		
Industrial.....	(\$000's)	1,159	1,317	1,790	1,673	44.3	-6.5
	%	(12.1)	(4.7)	(5.8)	(7.9)		
Commercial.....	(\$000's)	1,357	4,735	4,779	2,575	89.8	-46.1
	%	(14.2)	(16.9)	(15.5)	(12.1)		
Institutional and Government.....	(\$000's)	2,319	7,056	9,651	5,812	150.6	-39.8
	%	(24.3)	(25.2)	(31.2)	(27.4)		
Other.....	(\$000's)	3	21	13	12	300.0	-7.7
	%	*	(0.1)	*	(0.1)		
Total.....	(\$000's)	9,553	27,974	30,918	21,185	121.8	-31.5
	%	(100.0)	(100.0)	(100.0)	(100.0)		
METROPOLITAN							
Residential.....	(\$000's)	115,925	355,778	265,607	208,442	79.8	-21.5
	%	(53.9)	(63.9)	(54.1)	(48.3)		
Industrial.....	(\$000's)	43,380	48,131	48,333	57,378	32.3	18.7
	%	(20.1)	(8.7)	(9.9)	(13.3)		
Commercial.....	(\$000's)	32,240	78,137	99,009	89,586	177.9	-9.5
	%	(15.0)	(14.0)	(20.2)	(20.8)		
Institutional and Government.....	(\$000's)	21,711	72,933	75,903	74,088	241.2	-2.4
	%	(10.1)	(13.1)	(15.5)	(17.2)		
Other.....	(\$000's)	1,989	1,441	1,560	1,751	-12.0	12.2
	%	(0.9)	(0.3)	(0.3)	(0.4)		
Total.....	(\$000's)	215,245	556,420	490,412	431,245	100.4	-12.1
	%	(100.0)	(100.0)	(100.0)	(100.0)		
NIAGARA							
Residential.....	(\$000's)	32,346	74,699	66,965	50,290	55.5	-24.9
	%	(50.3)	(58.9)	(53.2)	(40.9)		
Industrial.....	(\$000's)	15,717	11,979	10,004	22,796	45.0	127.9
	%	(24.4)	(9.5)	(7.9)	(18.5)		
Commercial.....	(\$000's)	8,129	14,287	22,510	22,510	176.9	*
	%	(12.6)	(11.3)	(17.9)	(18.3)		
Institutional and Government.....	(\$000's)	8,092	25,686	26,389	27,357	238.1	3.7
	%	(12.6)	(20.3)	(21.0)	(22.2)		
Other.....	(\$000's)	75	51	42	117	56.0	178.6
	%	(0.1)	*	*	(0.1)		
Total.....	(\$000's)	64,359	126,702	125,910	123,070	91.2	-2.3
	%	(100.0)	(100.0)	(100.0)	(100.0)		
LAKE ERIE							
Residential.....	(\$000's)	9,031	29,295	30,608	21,239	135.2	-30.6
	%	(41.7)	(56.4)	(58.6)	(52.5)		
Industrial.....	(\$000's)	2,362	3,014	6,838	3,630	53.7	-46.9
	%	(10.9)	(5.8)	(13.1)	(9.0)		
Commercial.....	(\$000's)	3,040	9,190	7,931	5,876	93.3	-25.9
	%	(14.0)	(17.7)	(15.2)	(14.5)		
Institutional and Government.....	(\$000's)	7,228	10,408	6,790	9,659	33.6	42.3
	%	(33.4)	(20.0)	(13.0)	(23.9)		
Other.....	(\$000's)	6	38	29	25	316.7	-13.8
	%	*	(0.1)	(0.1)	(0.1)		
Total.....	(\$000's)	21,667	51,945	52,196	40,429	86.6	-22.5
	%	(100.0)	(100.0)	(100.0)	(100.0)		

		REGIONS				Per Cent Change	
		1951	1958	1959	1960	1960/1951	1960/1959
LAKE ST. CLAIR							
Residential.....	(\$000's)	17,341	24,955	25,125	19,799	14.2	-21.2
	%	(48.2)	(44.4)	(53.0)	(47.3)		
Industrial.....	(\$000's)	11,281	4,296	4,034	3,377	-70.1	-16.3
	%	(31.4)	(7.7)	(8.5)	(8.1)		
Commercial.....	(\$000's)	4,617	6,941	7,370	6,707	45.3	-9.0
	%	(12.8)	(12.4)	(15.5)	(16.0)		
Institutional and Government.....	(\$000's)	2,725	19,937	10,884	11,962	339.0	9.9
	%	(7.6)	(35.5)	(22.9)	(28.6)		
Other.....	(\$000's)	12	20	46	9	-25.0	-80.4
	%	*	*	(0.1)	*		
Total.....	(\$000's)	35,796	56,149	47,459	41,854	16.9	-11.8
	%	(100.0)	(100.0)	(100.0)	(100.0)		
UPPER GRAND RIVER							
Residential.....	(\$000's)	10,344	27,208	29,535	27,298	163.9	-7.6
	%	(62.4)	(50.0)	(57.1)	(50.6)		
Industrial.....	(\$000's)	1,818	9,242	7,309	4,230	132.7	-42.1
	%	(11.0)	(17.0)	(14.1)	(7.9)		
Commercial.....	(\$000's)	2,022	5,426	7,519	9,353	362.6	24.4
	%	(12.2)	(10.0)	(14.5)	(17.3)		
Institutional and Government.....	(\$000's)	1,989	12,203	6,989	12,639	535.4	80.8
	%	(12.0)	(22.4)	(13.5)	(23.4)		
Other.....	(\$000's)	390	346	412	442	13.3	7.3
	%	(2.4)	(0.6)	(0.8)	(0.8)		
Total.....	(\$000's)	16,563	54,425	51,764	53,962	225.8	4.2
	%	(100.0)	(100.0)	(100.0)	(100.0)		
GEORGIAN BAY							
Residential.....	(\$000's)	2,665	11,339	11,000	8,010	200.6	-27.2
	%	(40.5)	(64.8)	(51.1)	(43.7)		
Industrial.....	(\$000's)	425	1,109	3,376	1,620	281.2	-52.0
	%	(6.4)	(6.3)	(15.7)	(8.8)		
Commercial.....	(\$000's)	1,246	2,606	3,740	3,723	198.8	-0.5
	%	(18.9)	(15.0)	(17.4)	(20.3)		
Institutional and Government.....	(\$000's)	2,240	2,436	3,417	4,990	122.8	46.0
	%	(34.0)	(13.9)	(15.8)	(27.2)		
Other.....	(\$000's)	11	2	5	6	-45.5	20.0
	%	(0.2)	*	*	*		
Total.....	(\$000's)	6,587	17,492	21,538	18,349	178.6	-14.8
	%	(100.0)	(100.0)	(100.0)	(100.0)		
NORTHEASTERN ONTARIO							
Residential.....	(\$000's)	9,076	25,638	29,689	21,874	141.0	-26.3
	%	(56.4)	(63.0)	(58.3)	(58.3)		
Industrial.....	(\$000's)	398	1,101	2,103	1,203	202.3	-42.8
	%	(2.5)	(2.7)	(4.1)	(3.2)		
Commercial.....	(\$000's)	2,243	6,660	7,482	5,924	164.1	-20.8
	%	(13.9)	(16.4)	(14.7)	(15.8)		
Institutional and Government.....	(\$000's)	4,359	7,296	11,651	8,490	94.8	-27.1
	%	(27.1)	(17.9)	(22.9)	(22.7)		
Other.....	(\$000's)	16	7	2	1	-93.8	-50.0
	%	(0.1)	*	*	*		
Total.....	(\$000's)	16,092	40,702	50,927	37,492	133.0	-26.4
	%	(100.0)	(100.0)	(100.0)	(100.0)		
LAKEHEAD-NORTHWESTERN ONTARIO							
Residential.....	(\$000's)	2,265	13,020	11,596	7,053	211.4	-39.2
	%	(31.4)	(54.7)	(50.6)	(28.6)		
Industrial.....	(\$000's)	911	1,356	5,377	5,621	517.0	4.5
	%	(12.6)	(5.7)	(23.4)	(22.8)		
Commercial.....	(\$000's)	1,059	4,040	3,079	4,221	298.6	37.1
	%	(14.7)	(17.0)	(13.4)	(17.1)		
Institutional and Government.....	(\$000's)	2,964	5,380	2,875	7,739	161.1	169.2
	%	(41.1)	(22.6)	(12.5)	(31.4)		
Other.....	(\$000's)	18	6	16	34	88.9	112.5
	%	(0.2)	*	(0.1)	(0.1)		
Total.....	(\$000's)	7,217	23,802	22,943	24,668	241.8	7.5
	%	(100.0)	(100.0)	(100.0)	(100.0)		
TOTAL, ONTARIO							
Residential.....	(\$000's)	225,560	649,035	552,096	438,531	94.4	-20.6
	%	(50.8)	(59.1)	(54.1)	(48.4)		
Industrial.....	(\$000's)	81,545	90,143	93,926	107,442	31.8	14.4
	%	(18.4)	(8.2)	(9.2)	(11.9)		
Commercial.....	(\$000's)	72,772	153,216	186,918	170,545	134.4	-8.8
	%	(16.4)	(14.0)	(18.3)	(18.8)		
Institutional and Government.....	(\$000's)	61,468	203,332	185,639	186,859	204.0	0.7
	%	(13.8)	(18.5)	(18.2)	(20.6)		
Other.....	(\$000's)	2,547	1,990	2,192	2,442	-4.1	11.4
	%	(0.6)	(0.2)	(0.2)	(0.3)		
Total.....	(\$000's)	443,892	1,097,716	1,020,771	905,819	104.1	-11.3
	%	(100.0)	(100.0)	(100.0)	(100.0)		

*Less than 0.05 per cent.

 Source: Dominion Bureau of Statistics, *Building Permits*.

VALUE OF BUILDING PERMITS ISSUED, ONTARIO, 1951 AND 1958 TO 1960

METROPOLITAN AREAS						
	1951	1958	1959	1960	Per Cent 1960/1951	Change 1960 1959
HAMILTON(\$000's)	35,078	77,167	74,726	74,679	112.9	-0.1
	% (100.0)	(100.0)	(100.0)	(100.0)		
Residential(\$000's)	16,152	46,146	38,410	29,271	81.2	-23.8
	% (46.0)	(59.8)	(51.4)	(39.2)		
Industrial(\$000's)	11,646	6,973	5,835	16,892	45.0	189.5
	% (33.2)	(9.0)	(7.8)	(22.6)		
Commercial(\$000's)	3,106	7,487	12,801	11,678	276.0	-8.8
	% (8.9)	(9.7)	(17.1)	(15.7)		
Institutional and Government ..(\$000's)	4,123	16,538	17,653	16,755	306.4	-5.1
	% (11.8)	(21.5)	(23.6)	(22.4)		
Other(\$000's)	51	23	27	83	62.7	207.4
	% (0.1)	*	(0.1)	(0.1)		
LONDON(\$000's)	15,183	40,099	40,707	30,834	103.1	-24.3
	% (100.0)	(100.0)	(100.0)	(100.0)		
Residential(\$000's)	6,904	23,055	23,383	15,729	127.8	-32.7
	% (45.5)	(57.5)	(57.4)	(51.0)		
Industrial(\$000's)	1,523	1,717	5,531	2,816	84.9	-49.1
	% (10.0)	(4.3)	(13.6)	(9.1)		
Commercial(\$000's)	2,248	7,479	6,603	4,105	82.6	-37.8
	% (14.8)	(18.7)	(16.2)	(13.3)		
Institutional and Government ..(\$000's)	4,504	7,818	5,161	8,160	81.2	58.1
	% (29.7)	(19.5)	(12.7)	(26.5)		
Other(\$000's)	4	30	29	24	500.0	-17.2
	% *	*	(0.1)	(0.1)		
OTTAWA(\$000's)	36,271	101,881	91,810	80,517	122.0	-12.3
	% (100.0)	(100.0)	(100.0)	(100.0)		
Residential(\$000's)	16,628	50,395	48,721	49,628	205.1	1.9
	% (44.9)	(49.5)	(53.1)	(61.6)		
Industrial(\$000's)	1,070	7,465	2,717	3,468	224.1	27.6
	% (2.9)	(7.3)	(3.0)	(4.3)		
Commercial(\$000's)	15,988	15,502	18,474	13,480	-15.7	-27.0
	% (44.1)	(15.2)	(20.1)	(16.8)		
Institutional and Government ..(\$000's)	2,926	28,519	21,898	13,940	376.4	-36.3
	% (8.1)	(28.0)	(23.8)	(17.3)		
Other(\$000's)	19	—	—	1	-94.7	—
	% *	—	—	*		
TORONTO(\$000's)	185,985	427,177	382,588	332,575	78.8	-13.1
	% (100.0)	(100.0)	(100.0)	(100.0)		
Residential(\$000's)	95,612	269,522	199,193	163,794	71.3	-17.8
	% (51.4)	(63.1)	(52.0)	(49.3)		
Industrial(\$000's)	39,981	25,105	31,719	38,367	-4.0	21.0
	% (21.5)	(5.9)	(8.3)	(11.5)		
Commercial(\$000's)	28,431	68,298	87,168	69,177	143.3	-20.6
	% (15.3)	(16.0)	(22.8)	(20.8)		
Institutional and Government ..(\$000's)	20,016	62,837	62,977	59,523	197.4	-5.5
	% (10.8)	(14.7)	(16.5)	(17.9)		
Other(\$000's)	1,945	1,415	1,531	1,714	-11.9	12.0
	% (1.0)	(0.3)	(0.4)	(0.5)		
WINDSOR(\$000's)	23,676	24,893	20,162	21,538	-9.0	6.8
	% (100.0)	(100.0)	(100.0)	(100.0)		
Residential(\$000's)	9,943	13,641	11,540	8,211	-17.4	-28.8
	% (42.0)	(54.9)	(57.2)	(38.1)		
Industrial(\$000's)	9,644	1,176	1,433	2,285	-76.3	59.5
	% (40.7)	(4.7)	(7.1)	(10.6)		
Commercial(\$000's)	2,186	3,270	3,877	2,779	27.1	-28.3
	% (9.3)	(13.1)	(19.2)	(12.9)		
Institutional and Government ..(\$000's)	1,901	6,804	3,278	8,259	334.5	152.0
	% (8.0)	(27.3)	(16.3)	(38.4)		
Other(\$000's)	2	2	34	4	100.0	-88.2
	% *	*	(0.2)	*		

*Less than 0.05 per cent.

Source: Dominion Bureau of Statistics, *Building Permits*.

VALUE OF NON-RESIDENTIAL BUILDING PLANS¹ APPROVED, ONTARIO, 1956 TO 1959

	REGIONS			
	1956	1957	1958	1959
	(Thousands of Dollars)			
EASTERN ONTARIO.....	10,273	10,991	18,089	24,184
A—Ottawa Valley.....	5,422	3,082	14,497	19,600
B—Upper St. Lawrence.....	4,851	7,909	3,592	4,584
LAKE ONTARIO.....	3,122	4,028	2,189	4,146
METROPOLITAN.....	101,814	79,233	130,204	97,615
NIAGARA.....	18,382	17,152	19,722	14,835
A—Burlington.....	14,536	13,964	14,253	8,244
B—Niagara.....	3,846	3,188	5,469	6,591
LAKE ERIE.....	7,800	10,196	10,559	7,966
LAKE ST. CLAIR.....	8,964	7,955	8,544	7,277
A—Border.....	6,549	4,213	6,198	4,315
B—Lambton.....	2,415	3,742	2,346	2,962
UPPER GRAND RIVER.....	11,609	6,425	12,536	10,378
GEORGIAN BAY.....	2,334	2,311	2,825	4,764
A—Blue Water.....	1,951	2,033	2,328	4,276
B—Highlands.....	383	278	497	488
NORTHEASTERN ONTARIO.....	6,559	5,149	6,069	4,525
A—Clay Belt.....	3,055	818	1,258	1,232
B—Nickel Range.....	448	636	1,857	2,216
C—Sault.....	3,056	3,695	2,954	1,077
LAKEHEAD-NORTHWESTERN ONTARIO..	6,060	7,589	4,202	8,505
TOTAL, ONTARIO.....	176,917	151,029	214,939	184,195

¹Includes manufacturing building plans approved.

Source: Factory Inspection Branch, Ontario Department of Labour.

VALUE OF MANUFACTURING BUILDING PLANS APPROVED, ONTARIO, 1956 TO 1959

	REGIONS			
	1956	1957	1958	1959
	(Thousands of Dollars)			
EASTERN ONTARIO.....	6,962	8,644	4,576	5,255
A—Ottawa Valley.....	2,817	1,499	2,095	2,218
B—Upper St. Lawrence.....	4,145	7,145	2,481	3,037
LAKE ONTARIO.....	1,872	3,395	1,208	1,734
METROPOLITAN.....	55,861	43,139	32,294	36,805
NIAGARA.....	10,670	12,473	10,158	8,415
A—Burlington.....	7,297	10,536	6,180	5,081
B—Niagara.....	3,373	1,937	3,978	3,334
LAKE ERIE.....	5,268	8,934	4,094	6,188
LAKE ST. CLAIR.....	6,081	6,174	4,480	3,396
A—Border.....	3,825	2,841	3,161	1,856
B—Lambton.....	2,256	3,333	1,319	1,540
UPPER GRAND RIVER.....	10,947	5,773	10,540	7,323
GEORGIAN BAY.....	2,305	1,646	1,789	2,638
A—Blue Water.....	1,885	1,368	1,363	2,613
B—Highlands.....	420	278	426	25
NORTHEASTERN ONTARIO.....	6,085	4,111	3,799	1,348
A—Clay Belt.....	2,916	284	552	367
B—Nickel Range.....	118	451	1,266	678
C—Sault.....	3,051	3,376	1,981	303
LAKEHEAD-NORTHWESTERN ONTARIO..	5,439	7,242	1,442	1,428
TOTAL, ONTARIO.....	111,490	101,531	74,380	74,530

Source: Factory Inspection Branch, Ontario Department of Labour.

Survey of Production

ESTIMATED REGIONAL DISTRIBUTION OF NET VALUE OF PRODUCTION BY INDUSTRY, ONTARIO, 1951 AND 1954 TO 1958

		Agriculture	Forestry	Fisheries	Trapping	Mining	Electric Power	Manufactures	Construction	Total
(Thousands of Dollars)										
Eastern Ontario.....	1951	86,807	2,964	67	1,089	4,125	36,220	204,034	78,065	413,371
	1954	69,903	2,476	63	509	5,148	41,167	226,751	115,373	461,390
	1955	75,383	2,862	61	724	6,597	34,232	248,271	128,199	496,329
	1956	74,553	3,148	70	481	10,346	39,899	276,613	145,537	550,647
	1957	78,469	3,214	63	326	13,168	40,804	272,685	195,173	603,901
	1958	83,062	2,191	79	385	8,916	50,442	289,974	180,542	615,591
Lake Ontario.....	1951	65,189	951	356	576	3,849	2,712	120,748	14,727	209,108
	1954	52,998	794	227	324	4,524	2,957	147,396	21,775	230,995
	1955	56,520	919	286	518	7,929	2,515	147,567	21,171	237,425
	1956	53,751	1,010	387	338	9,806	2,899	179,283	21,311	268,785
	1957	55,678	1,031	286	257	16,682	2,835	190,056	28,475	295,300
	1958	60,722	703	365	312	22,546	2,326	186,551	35,541	309,066
Metropolitan.....	1951	46,986	—	13	—	5,336	428	1,267,605	331,813	1,652,181
	1954	37,940	—	3	—	12,271	4,903	1,530,507	505,355	2,090,979
	1955	41,694	—	2	—	14,979	2,707	1,705,702	491,724	2,256,808
	1956	38,351	—	2	—	16,830	6,936	1,827,428	549,768	2,439,315
	1957	40,390	—	—	—	16,504	9,390	1,957,094	683,973	2,707,351
	1958	42,575	—	—	—	20,279	4,589	2,003,676	706,920	2,778,039
Niagara.....	1951	38,667	4,878	493	228	9,333	53,185	711,516	99,213	917,513
	1954	34,322	4,075	630	89	10,212	72,115	730,051	109,674	961,168
	1955	36,991	4,712	744	145	11,991	120,698	813,131	116,013	1,104,425
	1956	37,564	5,182	679	81	13,619	133,234	895,156	132,903	1,218,418
	1957	39,509	5,289	620	72	13,760	137,136	967,880	149,027	1,313,293
	1958	46,516	3,607	502	63	15,228	143,306	890,519	160,972	1,260,713
Lake Erie.....	1951	62,474	—	989	247	2,268	—	158,852	33,401	258,231
	1954	52,464	—	991	97	3,719	—	183,712	33,426	274,409
	1955	57,070	—	1,033	158	4,269	—	202,671	36,098	301,299
	1956	57,902	—	1,290	89	4,791	—	223,655	44,575	332,302
	1957	59,644	—	1,285	78	5,140	—	240,809	48,703	355,659
	1958	98,845	—	948	68	5,538	—	236,673	65,995	408,067
Lake St. Clair.....	1951	61,134	83	1,689	179	7,514	53	423,886	55,459	549,997
	1954	53,933	70	2,022	70	4,374	4,518	420,134	55,971	541,092
	1955	60,954	81	2,276	114	4,891	859	502,520	56,475	628,170
	1956	53,665	89	3,671	64	5,299	1,728	550,075	65,806	680,397
	1957	57,821	91	3,264	56	6,333	4,367	504,187	57,826	633,945
	1958	64,399	62	3,525	49	7,803	1,372	460,986	71,336	609,532
Upper Grand River.....	1951	89,060	—	85	359	1,052	—	220,673	25,533	336,762
	1954	74,872	—	91	175	2,896	—	240,304	43,227	361,565
	1955	81,180	—	76	304	3,326	—	271,653	41,842	398,381
	1956	81,979	—	50	177	4,394	—	304,993	53,474	445,067
	1957	86,712	—	35	171	4,029	—	319,903	44,030	454,880
	1958	91,890	—	105	129	2,760	—	321,215	69,146	485,245
Georgian Bay.....	1951	79,822	176	1,143	541	685	1,996	57,341	10,157	151,861
	1954	64,241	147	1,197	317	2,309	2,278	67,158	13,863	151,510
	1955	70,141	170	762	546	2,342	1,642	72,589	12,960	161,152
	1956	71,536	188	414	388	3,045	1,985	83,515	20,831	181,902
	1957	74,306	191	217	360	3,095	1,989	93,493	22,219	195,870
	1958	79,028	130	177	213	3,584	1,743	91,079	22,223	198,177
Northeastern Ontario.....	1951	18,683	46,725	865	631	125,500	16,933	288,604	24,807	522,748
	1954	16,325	39,031	749	359	132,855	33,198	285,175	27,151	534,843
	1955	16,520	45,131	438	592	140,794	26,182	354,422	41,740	625,819
	1956	16,978	49,638	280	484	145,397	28,778	414,522	54,303	710,380
	1957	16,341	50,665	265	424	198,417	29,165	390,945	53,224	739,446
	1958	17,887	34,546	333	468	269,998	29,847	321,282	51,711	726,072
Lakehead-Northwestern Ontario.....	1951	5,278	62,749	1,335	1,364	18,892	15,792	116,141	11,125	232,676
	1954	4,661	52,416	1,040	743	18,114	18,843	99,542	10,885	206,244
	1955	4,981	60,608	1,105	1,185	24,145	19,814	108,129	21,878	241,845
	1956	5,191	66,662	1,084	888	32,927	21,534	113,330	27,792	269,408
	1957	5,076	68,040	1,012	832	32,347	23,501	110,659	26,415	267,882
	1958	5,382	46,394	1,237	1,026	44,579	27,745	112,119	30,240	268,722
TOTAL, ONTARIO.....	1951	554,100	118,526	7,035	5,214	178,554	127,319	3,569,400	684,300	5,244,448
	1954	461,659	99,009	7,013	2,683	196,422	179,679	3,930,730	936,700	5,814,195
	1955	501,434	114,483	6,783	4,286	221,263	208,649	4,426,655	968,100	6,451,653
	1956	491,470	125,917	7,927	2,990	246,454	236,993	4,868,570	1,116,300	7,096,621
	1957	513,946	128,521	7,047	2,576	309,475	249,187	5,047,711	1,309,064	7,567,527
	1958	590,306	87,633	7,271	2,713	401,231	261,370	4,914,074	1,394,626	7,659,224

Note: Data for manufactures will differ from those shown in the chapter on manufacturing as an attempt has been made here to estimate inventory adjustment.

Source: Regional distribution estimated by the Ontario Department of Economics; Dominion Bureau of Statistics, *Survey of Production*.

Tourist Trade

Tourist establishments, outfitters' camps and licensed establishments provided accommodation for about 280,000 persons in 1959. Over 60 per cent of this total capacity was provided by the tourist establishments while the other two categories, outfitters' camps and licensed establishments, accounted for about 17 and 21 per cent, respectively. More than one-half of the tourist establishments are located in the Lake Ontario and Georgian Bay regions with the remainder being distributed throughout

every county and district in the Province. Outfitters' camps provide a popular form of accommodation in the more northerly sections of Ontario where excellent fishing and hunting are to be had. Over one-half of the Provincial total is located in the Districts of Kenora, Parry Sound and Nipissing. Licensed establishments are available throughout the Province, with heavy concentrations in the Metropolitan and Northeastern Ontario regions.

ESTIMATED TOURIST ACCOMMODATION, ONTARIO, 1959

		Capacity (Number of Persons)		
		REGIONS		
		In Tourist Establishments ¹	In Outfitters' Camps	In Licensed Establishments
EASTERN ONTARIO	No.	25,244	1,187	6,912
	%	(14.5)	(2.5)	(11.4)
A—Ottawa Valley	No.	10,354	1,187	4,285
	%	(5.9)	(2.5)	(7.1)
B—Upper St. Lawrence	No.	14,850	—	2,627
	%	(8.6)	—	(4.3)
LAKE ONTARIO	No.	37,307	—	2,901
	%	(21.5)	—	(4.8)
METROPOLITAN	No.	10,438	—	14,147
	%	(6.0)	—	(23.3)
NIAGARA	No.	15,548	—	7,257
	%	(9.0)	—	(11.9)
A—Burlington	No.	2,272	—	2,332
	%	(1.3)	—	(3.8)
B—Niagara	No.	13,276	—	4,925
	%	(7.7)	—	(8.1)
LAKE ERIE	No.	6,531	—	3,246
	%	(3.8)	—	(5.3)
LAKE ST. CLAIR	No.	8,940	—	4,686
	%	(5.1)	—	(7.7)
A—Border	No.	5,235	—	3,581
	%	(3.0)	—	(5.9)
B—Lambton	No.	3,705	—	1,105
	%	(2.1)	—	(1.8)
UPPER GRAND RIVER	No.	3,216	—	2,608
	%	(1.9)	—	(4.3)
GEORGIAN BAY	No.	55,837	9,325	5,441
	%	(32.2)	(19.8)	(8.9)
A—Blue Water	No.	32,047	—	1,608
	%	(18.5)	—	(2.6)
B—Highlands	No.	23,790	9,325	3,833
	%	(13.7)	(19.8)	(6.3)
NORTHEASTERN ONTARIO	No.	6,963	21,535	8,897
	%	(4.0)	(45.7)	(14.6)
A—Clay Belt	No.	3,506	8,910	5,097
	%	(2.0)	(18.9)	(8.4)
B—Nickel Range	No.	1,326	7,745	2,232
	%	(0.8)	(16.4)	(3.6)
C—Sault	No.	2,131	4,880	1,568
	%	(1.2)	(10.4)	(2.6)
LAKEHEAD-NORTHWESTERN ONTARIO	No.	3,519	15,063	4,728
	%	(2.0)	(32.0)	(7.8)
GRAND TOTAL, ONTARIO	No.	173,543	47,110	60,823
	%	(100.0)	(100.0)	(100.0)

¹Includes accommodation in motel units.

Source: Ontario Department of Travel and Publicity, *Where to Stay in Ontario*.

MOTEL UNITS

The number of motel units in Ontario in 1959, approximately 17,100, was more than 5,300 or 45 per cent higher than in 1956. During this three-year period, the North-eastern and Lakehead-Northwestern Ontario regions recorded the largest proportional gains—94 and 78 per cent respectively—followed by Georgian Bay with 71 per cent. The number of units in Cochrane District (247)

was nearly three and one-half times the 1956 level, while the number in Stormont (298) and Wellington (102) tripled during the period. About 45 per cent of all the motel units in the Province were located in three regions—Niagara, Eastern Ontario and Metropolitan. Welland and York accounted for the largest number of units by County, making up 13 and 7 per cent, respectively, of the total.

ESTIMATED NUMBER OF MOTEL UNITS, ONTARIO, 1956 AND 1959

		REGIONS		Per Cent Change 1959/1956
		1956	1959	
EASTERN ONTARIO.....	No.	1,403	2,287	63.0
	%	(11.9)	(13.4)	
A—Ottawa Valley.....	No.	657	1,073	63.3
	%	(5.6)	(6.3)	
B—Upper St. Lawrence.....	No.	746	1,214	62.7
	%	(6.3)	(7.1)	
LAKE ONTARIO.....	No.	893	1,480	65.7
	%	(7.6)	(8.7)	
METROPOLITAN.....	No.	1,639	2,063	25.9
	%	(14.0)	(12.1)	
NIAGARA.....	No.	2,871	3,380	17.7
	%	(24.4)	(19.8)	
A—Burlington.....	No.	693	763	10.1
	%	(5.9)	(4.5)	
B—Niagara.....	No.	2,178	2,617	20.2
	%	(18.5)	(15.3)	
LAKE ERIE.....	No.	1,000	1,356	35.6
	%	(8.5)	(7.9)	
LAKE ST. CLAIR.....	No.	1,055	1,434	35.9
	%	(9.0)	(8.4)	
A—Border.....	No.	799	997	24.8
	%	(6.8)	(5.8)	
B—Lambton.....	No.	256	437	70.7
	%	(2.2)	(2.6)	
UPPER GRAND RIVER.....	No.	402	551	37.1
	%	(3.4)	(3.2)	
GEORGIAN BAY.....	No.	1,094	1,873	71.2
	%	(9.3)	(11.0)	
A—Blue Water.....	No.	748	1,209	61.6
	%	(6.4)	(7.1)	
B—Highlands.....	No.	346	664	91.9
	%	(2.9)	(3.9)	
NORTHEASTERN ONTARIO.....	No.	981	1,901	93.8
	%	(8.3)	(11.1)	
A—Clay Belt.....	No.	413	837	102.7
	%	(3.5)	(4.9)	
B—Nickel Range.....	No.	209	388	85.6
	%	(1.8)	(2.3)	
C—Sault.....	No.	359	676	88.3
	%	(3.0)	(3.9)	
LAKEHEAD-NORTHWESTERN ONTARIO.....	No.	417	743	78.2
	%	(3.6)	(4.4)	
GRAND TOTAL, ONTARIO.....	No.	11,755	17,068	45.2
	%	(100.0)	(100.0)	

Source: Ontario Department of Travel and Publicity, *Where to Stay in Ontario*.

Transportation

SELECTED COMMODITIES CLEARED THROUGH THE WELLAND AND ST. LAWRENCE CANALS, SELECTED YEARS 1946 TO 1960

	Welland			St. Lawrence		
	Up	Down	Total	Up	Down	Total
	(Cargo Tons)					
Iron Ore.....1946	71,206	862,248	933,454	13,455	—	13,455
1956	2,529,826	2,768,893	5,298,719	2,616,041	—	2,616,041
1958	1,859,499	2,431,985	4,291,484	1,526,109	—	1,526,109
1959	5,384,356	1,912,117	7,296,473	6,272,757	2,578	6,275,335
1960 ¹	4,288,875	3,669,083	7,957,958	4,344,808	37	4,344,845
Bituminous Coal.....1946	50,133	3,764,181	3,814,314	39,520	2,356,450	2,395,970
1956	1,095	5,624,490	5,625,585	2,836	1,768,265	1,771,101
1958	12,838	4,387,962	4,400,800	204,535	823,826	1,028,361
1959	139,087	4,646,321	4,785,408	390,159	746,909	1,137,068
1960 ¹	103,435	4,258,314	4,361,749	320,652	704,268	1,024,920
Wheat.....1946	25,164	1,417,606	1,442,770	—	665,969	665,969
1956	40,273	3,155,022	3,195,295	900	2,585,771	2,586,671
1958	17,021	3,613,240	3,630,261	—	2,784,147	2,784,147
1959	18,329	3,937,655	3,955,984	102,963	3,484,449	3,587,412
1960 ¹	11,690	4,512,099	4,523,789	5,727	3,874,102	3,879,829
Barley.....1946	—	210,183	210,183	—	100,722	100,722
1956	4,390	1,309,773	1,314,163	—	1,052,468	1,052,468
1958	14,661	1,321,514	1,336,175	1,683	1,027,079	1,028,762
1959	—	1,214,239	1,214,239	3,259	996,243	999,502
1960 ¹	—	1,212,332	1,212,332	—	983,559	983,559
Total ²1946	1,415,785	9,164,361	10,580,146	1,644,255	4,106,323	5,750,578
1956	5,069,312	17,996,949	23,066,261	5,778,296	7,721,402	13,499,698
1958	5,005,587	16,268,607	21,274,194	4,670,247	7,091,853	11,762,100
1959	9,596,566	17,909,458	27,506,024	11,154,969	10,066,311	21,221,280
1960 ¹	8,618,432	20,889,860	29,508,292	8,902,250	11,894,918	20,797,168

¹Preliminary.

²Includes all other commodities.

Source: Dominion Bureau of Statistics, *Canal Statistics*.

FREIGHT CARRIED THROUGH THE WELLAND AND ST. LAWRENCE CANALS BY COUNTRY OF LOADING AND UNLOADING OF CARGO, 1958 AND 1959

Destination	Cargo of Canadian Origin		Cargo of United States Origin		Cargo of Overseas Origin		Total Cargo	
	1958	1959	1958	1959	1958	1959	1958	1959
	(Cargo Tons)							
	Welland Canal							
Canada	7,341,634	6,685,121	8,594,868	8,500,249	27,038	49,741	15,963,540	15,235,111
United States	3,185,594	6,813,023	1,348,203	1,010,627	319,974	1,061,212	4,853,771	8,884,862
Overseas	112,728	556,520	344,155	2,829,531	—	—	456,883	3,386,051
Total	10,639,956	14,054,664	10,287,226	12,340,407	347,012	1,110,953	21,274,194	27,506,024
	St. Lawrence Canal System							
Canada	7,444,655	8,078,531	1,161,120	1,755,791	195,247	846,634	8,801,022	10,680,956
United States	2,072,981	5,660,107	28,956	36,588	320,517	1,105,425	2,422,454	6,802,120
Overseas	192,483	904,357	346,141	2,833,847	—	—	538,624	3,738,204
Total	9,710,119	14,642,995	1,536,217	4,626,226	515,764	1,952,059	11,762,100	21,221,280

Source: Dominion Bureau of Statistics, *Canal Statistics*.

COMMODITIES LOADED AND UNLOADED BY TYPE OF SERVICE, MAJOR ONTARIO PORTS, 1958 AND 1959

		Foreign		Coastwise		Total
		Loaded	Unloaded	Loaded	Unloaded	
				(Cargo Tons)		
PORT ARTHUR	1958	1,551,072	200,766	5,387,441	187,061	7,326,340
	1959	3,260,969	144,912	5,398,739	187,097	8,991,717
Wheat	1958	108,044	—	3,459,496	5,865	3,573,405
	1959	208,108	—	3,582,266	—	3,790,374
Iron Ore	1958	1,048,694	—	282,417	—	1,331,111
	1959	2,641,251	—	597,459	—	3,238,710
Barley	1958	139,610	—	905,491	—	1,045,101
	1959	181,076	—	566,398	—	747,474
All Other	1958	254,724	200,766	740,037	181,196	1,376,723
	1959	230,534	144,912	652,616	187,097	1,215,159
HAMILTON	1958	11,924	5,321,772	277,794	582,586	6,194,076
	1959	65,297	5,393,479	379,537	1,647,725	7,486,038
Coal, Bituminous	1958	—	2,511,560	—	2,537	2,514,097
	1959	—	3,064,846	—	9,050	3,073,896
Iron Ore	1958	—	2,433,464	—	200,269	2,633,733
	1959	63	1,734,842	—	1,243,942	2,978,847
Petroleum Oils	1958	—	167,012	2,900	137,365	307,277
	1959	20	212,935	9,001	164,874	386,830
All Other	1958	11,924	209,736	274,894	242,415	738,969
	1959	65,214	380,856	370,536	229,859	1,046,465
TORONTO	1958	123,236	2,026,925	622,467	1,633,797	4,406,425
	1959	257,522	2,170,907	550,996	1,789,683	4,769,108
Coal, Bituminous	1958	—	1,394,152	2,504	27,889	1,424,545
	1959	—	1,209,652	13,197	50,605	1,273,454
Petroleum Oils	1958	—	142,291	82,415	325,611	550,317
	1959	3	217,744	81,587	375,527	674,861
Wheat	1958	—	—	139,124	258,719	397,843
	1959	—	—	106,504	247,792	354,296
All Other	1958	123,236	490,482	398,424	1,021,578	2,033,720
	1959	257,519	743,511	349,708	1,115,759	2,466,497
SAULT STE. MARIE	1958	175,243	2,712,345	142,243	461,588	3,491,419
	1959	377,485	3,349,093	147,612	702,626	4,576,816
Coal, Bituminous	1958	—	1,322,166	—	—	1,322,166
	1959	—	2,038,070	2,719	—	2,040,789
Iron Ore	1958	5,006	912,191	—	265,558	1,182,755
	1959	14,436	790,037	—	506,627	1,311,100
Limestone	1958	—	335,727	—	—	335,727
	1959	—	443,902	—	—	443,902
All Other	1958	170,237	142,261	142,243	196,030	650,771
	1959	363,049	77,084	144,893	195,999	781,025
FORT WILLIAM	1958	420,487	279,075	2,728,243	457,032	3,884,837
	1959	589,088	162,150	2,509,673	439,321	3,700,232
Wheat	1958	83,677	—	1,776,602	7,535	1,867,814
	1959	123,793	—	1,775,112	—	1,898,905
Barley	1958	177,228	—	491,900	—	669,128
	1959	260,675	—	307,698	—	568,373
Oats	1958	8,902	—	193,336	—	202,238
	1959	2,623	—	155,161	—	157,784
All Other	1958	150,680	279,075	266,405	449,497	1,145,657
	1959	201,997	162,150	271,702	439,321	1,075,170
PORT COLBORNE	1958	381,449	440,082	1,599,370	1,959,187	4,380,088
	1959	717,281	402,321	806,190	1,409,626	3,335,418
Wheat	1958	930	—	903,141	1,309,139	2,213,210
	1959	—	—	743,619	1,075,976	1,819,595
Iron Ore	1958	2,733	89,602	—	21,760	114,095
	1959	—	108,465	—	103,284	211,749
Coal, Bituminous	1958	—	190,030	6,500	—	196,530
	1959	—	182,106	—	17,785	199,891
All Other	1958	377,786	160,450	689,729	628,288	1,856,253
	1959	717,281	111,750	62,571	212,581	1,104,183
SARNIA	1958	76,898	712,205	1,700,960	551,670	3,041,733
	1959	79,725	648,577	1,720,324	582,748	3,031,374
Petroleum Oils	1958	19,453	31,115	901,694	95,685	1,047,947
	1959	19,970	46,811	976,592	147,948	1,191,321
Gasoline	1958	—	21,550	486,635	4,003	512,188
	1959	—	5,645	506,088	1,350	513,083
Coal, Bituminous	1958	—	484,796	—	—	484,796
	1959	—	373,316	—	—	373,316
All Other	1958	57,445	174,744	312,631	451,982	996,802
	1959	59,755	222,805	237,644	433,450	953,654

COMMODITIES LOADED AND UNLOADED BY TYPE OF SERVICE, MAJOR ONTARIO PORTS, 1958 AND 1959—Continued

		Foreign		Coastwise		Total
		Loaded	Unloaded	Loaded	Unloaded	
				(Cargo Tons)		
PRESCOTT.....	1958	2,824	288,277	1,447,302	1,702,099	3,440,502
	1959	5,262	159,104	557,000	798,599	1,519,965
Wheat.....	1958	—	—	817,404	978,530	1,795,934
	1959	—	—	498,555	592,051	1,090,606
Barley.....	1958	948	—	392,468	470,080	863,496
	1959	3,442	—	41,752	108,981	154,175
Coal, Bituminous.....	1958	—	131,784	—	7,431	139,215
	1959	—	76,341	—	—	76,341
All Other.....	1958	1,876	156,493	237,430	246,058	641,857
	1959	1,820	82,763	16,693	97,567	198,843

Source: Dominion Bureau of Statistics, *Shipping Statistics*.

ROAD AND HIGHWAY MILEAGES BY TYPE OF ROAD, ONTARIO, 1959

COUNTIES AND REGIONS

	King's Highways ¹	Secondary Highways ¹	County Roads	Organized Township Roads	Unorganized Township Roads	Urban Roads	Total	Per Cent of Ontario
EASTERN ONTARIO								
A—Ottawa Valley								
Carleton	145	—	252	1,055	—	498	1,949	2.3
Lanark	96	14	242	1,007	—	100	1,459	1.7
Prescott	51	—	173	528	—	22	774	0.9
Renfrew	284	105	223	1,699	—	119	2,429	2.8
Russell	51	—	151	522	—	10	735	0.9
Sub-total	628	119	1,041	4,811	—	749	7,347	8.6
B—Upper St. Lawrence								
Dundas.....	54	—	146	446	—	21	667	0.8
Frontenac.....	172	35	166	933	—	90	1,395	1.6
Glengarry.....	54	—	155	515	—	17	742	0.9
Grenville.....	117	—	153	492	—	45	806	0.9
Leeds	117	—	197	833	—	75	1,223	1.4
Stormont.....	54	—	157	394	—	121	727	0.9
Sub-total	569	35	974	3,613	—	369	5,560	6.5
TOTAL, EASTERN ONTARIO.....	1,197	154	2,015	8,424	—	1,117	12,907	15.1
LAKE ONTARIO								
Durham	124	—	138	969	—	72	1,303	1.5
Haliburton.....	114	99	—	456	—	—	668	0.8
Hastings.....	239	46	268	1,517	—	148	2,218	2.6
Lennox & Addington.....	125	6	174	648	—	26	980	1.1
Northumberland.....	124	—	161	1,303	—	82	1,670	1.9
Peterborough.....	119	58	200	1,102	—	126	1,606	1.9
Prince Edward.....	60	—	188	416	—	20	684	0.8
Victoria.....	157	59	235	911	—	78	1,439	1.7
TOTAL, LAKE ONTARIO.....	1,062	267	1,365	7,322	—	552	10,568	12.3
METROPOLITAN								
Halton.....	104	—	148	412	—	307	971	1.1
Ontario	152	—	267	1,076	—	262	1,757	2.0
Peel	114	—	153	731	—	79	1,077	1.3
York.....	202	—	190	2,376 ²	—	1,005 ³	3,774	4.4
TOTAL, METROPOLITAN	572	—	758	4,594	—	1,654	7,578	8.8
NIAGARA								
A—Burlington								
Brant.....	84	—	127	537	—	175	923	1.1
Wentworth.....	156	—	182	577	—	452	1,367	1.6
Sub-total.....	240	—	309	1,114	—	627	2,290	2.7
B Niagara								
Haldimand.....	77	—	164	620	—	56	917	1.1
Lincoln.....	75	—	191	621	—	161	1,048	1.2
Welland.....	113	—	167	980	—	241	1,501	1.7
Sub-total.....	265	—	522	2,221	—	458	3,466	4.0
TOTAL, NIAGARA.....	505	—	832	3,335	—	1,085	5,756	6.7

ROAD AND HIGHWAY MILEAGES BY TYPE OF ROAD, ONTARIO, 1959—Continued

COUNTIES AND REGIONS

	King's Highways ¹	Secondary Highways ¹	County Roads	Organized Township Roads	Unorganized Township Roads	Urban Roads	Total	Per Cent of Ontario
LAKE ERIE								
Elgin.....	117	—	276	884	—	92	1,370	1.6
Middlesex.....	229	—	510	1,720	—	227	2,685	3.1
Norfolk.....	61	—	243	1,005	—	73	1,382	1.6
Oxford.....	132	—	215	1,092	—	144	1,582	1.9
TOTAL, LAKE ERIE.....	538	—	1,244	4,701	—	536	7,019	8.2
LAKE ST. CLAIR								
A—Border								
Essex.....	209	—	263	1,095	—	507	2,073	2.4
Kent.....	175	—	408	1,254	—	193	2,031	2.4
Sub-total.....	384	—	671	2,349	—	700	4,104	4.8
B—Lambton								
Lambton.....	155	—	271	1,400	—	243	2,069	2.4
Sub-total.....	155	—	271	1,400	—	243	2,069	2.4
TOTAL, LAKE ST. CLAIR.....	539	—	942	3,749	—	943	6,173	7.2
UPPER GRAND RIVER								
Huron.....	201	—	391	1,594	—	115	2,301	2.7
Perth.....	132	—	204	1,044	—	153	1,532	1.8
Waterloo.....	73	—	215	607	—	437	1,333	1.6
Wellington.....	142	—	389	1,241	—	216	1,988	2.3
TOTAL, UPPER GRAND RIVER....	548	—	1,200	4,486	—	921	7,154	8.4
GEORGIAN BAY								
A—Blue Water								
Bruce.....	173	—	310	1,869	—	133	2,485	2.9
Dufferin.....	63	—	175	769	—	34	1,041	1.2
Grey.....	137	—	330	2,164	—	165	2,796	3.3
Simcoe.....	314	—	260	2,158	—	273	3,005	3.5
Sub-total.....	687	—	1,076	6,960	—	605	9,327	10.9
B—Highlands								
Muskoka.....	198	86	—	887	—	111	1,282	1.5
Parry Sound.....	217	166	—	1,001	549	63	1,997	2.3
Sub-total.....	415	252	—	1,889	549	175	3,279	3.8
TOTAL, GEORGIAN BAY.....	1,102	252	1,076	8,849	549	779	12,606	14.7
NORTHEASTERN ONTARIO								
A—Clay Belt								
Cochrane.....	436	183	—	623	718	97	2,057	2.4
Nipissing.....	378	81	—	696	296	114	1,565	1.8
Timiskaming.....	265	201	—	640	515	66	1,686	2.0
Sub-total.....	1,079	465	—	1,960	1,528	276	5,308	6.2
B—Nickel Range								
Manitoulin.....	244	195	—	523	122	21	1,105	1.3
Sudbury.....	279	267	—	809	665	162	2,182	2.5
Sub-total.....	523	462	—	1,332	788	183	3,288	3.8
C—Sault								
Algoma.....	244	195	—	897	647	131	2,114	2.5
Sub-total.....	244	195	—	897	647	131	2,114	2.5
TOTAL, NORTHEASTERN ONTARIO.....	1,847	1,122	—	4,188	2,963	590	10,710 ¹	12.5
LAKEHEAD-NORTHWESTERN ONTARIO								
Kenora.....	494	111	—	209	546	80	1,439	1.7
Rainy River.....	133	224	—	586	114	52	1,108	1.3
Thunder Bay.....	632	417	—	792	545	271	2,658	3.1
TOTAL, LAKEHEAD-NORTH- WESTERN ONTARIO.....	1,259	752	—	1,587	1,205	402	5,205	6.1
GRAND TOTAL, ONTARIO.....	9,167	2,547	9,431	51,234	4,717	8,580	85,677	100.0

¹As of March 31, 1960.²Includes 1,420 miles of Metropolitan Toronto area roads.³Includes 297 miles of metropolitan roads and 618 miles of road under local authority in the Metropolitan area.

Note: Figures may not add due to rounding.

Source: Ontario Department of Highways.

MOTOR VEHICLE REGISTRATIONS, ONTARIO, 1946 AND 1959

COUNTIES AND REGIONS

		Passenger		Commercial ¹		Total ²	
		No.	% of Ontario	No.	% of Ontario	No.	% of Ontario
EASTERN ONTARIO							
A—Ottawa Valley							
Carleton.....	1946	26,100	4.5	4,837	4.1	30,937	4.4
	1959	81,859	5.2	11,008	3.5	92,867	4.9
Lanark.....	1946	5,588	1.0	837	0.7	6,425	0.9
	1959	10,091	0.6	1,988	0.6	12,079	0.6
Prescott.....	1946	2,464	0.4	479	0.4	2,943	0.4
	1959	5,459	0.4	1,587	0.5	7,046	0.4
Renfrew.....	1946	7,845	1.3	1,566	1.3	9,411	1.3
	1959	18,682	1.2	4,479	1.4	23,161	1.2
Russell.....	1946	1,881	0.3	471	0.4	2,352	0.3
	1959	3,727	0.2	1,270	0.4	4,997	0.3
Sub-total.....	1946	43,878	7.5	8,190	7.0	52,068	7.4
	1959	119,818	7.6	20,332	6.4	140,150	7.4
B—Upper St. Lawrence							
Dundas.....	1946	2,939	0.5	509	0.4	3,448	0.5
	1959	5,311	0.3	1,352	0.4	6,663	0.4
Frontenac.....	1946	8,539	1.5	1,870	1.6	10,409	1.5
	1959	21,361	1.4	4,097	1.3	25,458	1.3
Glengarry.....	1946	2,502	0.4	461	0.4	2,963	0.4
	1959	5,897	0.4	1,230	0.4	7,127	0.4
Grenville.....	1946	2,750	0.5	540	0.5	3,290	0.5
	1959	5,890	0.4	1,389	0.5	7,279	0.4
Leeds.....	1946	5,977	1.0	1,289	1.1	7,266	1.0
	1959	12,019	0.8	2,631	0.8	14,650	0.8
Stormont.....	1946	4,930	0.8	880	0.8	5,810	0.8
	1959	14,921	0.9	2,499	0.8	17,420	0.9
Sub-total.....	1946	27,637	4.7	5,549	4.7	33,186	4.7
	1959	65,399	4.2	13,198	4.2	78,597	4.2
TOTAL, EASTERN ONTARIO.....	1946	71,515	12.2	13,739	11.7	85,254	12.1
	1959	185,217	11.8	33,530	10.6	218,747	11.6
LAKE ONTARIO							
Durham.....	1946	4,885	0.8	669	0.6	5,554	0.8
	1959	8,759	0.6	2,123	0.7	10,882	0.6
Haliburton.....	1946	948	0.2	261	0.2	1,209	0.2
	1959	2,153	0.1	851	0.2	3,004	0.2
Hastings.....	1946	10,916	1.9	2,263	1.9	13,179	1.9
	1959	24,897	1.6	5,684	1.8	30,581	1.6
Lennox & Addington.....	1946	3,531	0.6	652	0.6	4,183	0.6
	1959	5,428	0.3	1,801	0.6	7,229	0.4
Northumberland.....	1946	5,335	0.9	982	0.8	6,317	0.9
	1959	9,133	0.6	2,502	0.8	11,635	0.6
Peterborough.....	1946	8,171	1.4	1,313	1.1	9,484	1.3
	1959	18,741	1.2	3,690	1.1	22,431	1.2
Prince Edward.....	1946	3,232	0.6	815	0.7	4,047	0.6
	1959	5,513	0.4	1,537	0.5	7,050	0.4
Victoria.....	1946	4,927	0.8	749	0.6	5,676	0.8
	1959	8,261	0.5	2,219	0.7	10,480	0.5
TOTAL, LAKE ONTARIO.....	1946	41,945	7.2	7,704	6.6	49,649	7.1
	1959	82,885	5.3	20,407	6.4	103,292	5.5
METROPOLITAN							
Halton.....	1946	6,054	1.0	1,209	1.0	7,263	1.0
	1959	27,877	1.8	4,021	1.3	31,898	1.7
Ontario.....	1946	12,299	2.1	1,776	1.5	14,075	2.0
	1959	30,757	1.9	6,051	1.9	36,808	1.9
Peel.....	1946	6,952	1.2	1,450	1.2	8,402	1.2
	1959	30,966	2.0	4,897	1.6	35,863	1.9
York.....	1946	142,272	24.3	30,520	26.0	172,792	24.6
	1959	470,170	29.9	81,074	25.6	551,244	29.2
TOTAL, METROPOLITAN.....	1946	167,577	28.6	34,955	29.8	202,532	28.8
	1959	559,770	35.6	96,043	30.4	655,813	34.7
NIAGARA							
A—Burlington							
Brant.....	1946	9,493	1.6	1,789	1.5	11,282	1.6
	1959	21,753	1.3	4,147	1.3	25,900	1.4
Wentworth.....	1946	33,435	5.7	6,233	5.3	39,668	5.6
	1959	92,835	5.9	14,245	4.5	107,080	5.6
Sub-total.....	1946	42,928	7.3	8,022	6.8	50,950	7.2
	1959	114,588	7.2	18,392	5.8	132,980	7.0

MOTOR VEHICLE REGISTRATIONS, ONTARIO, 1946 AND 1959 -Continued

COUNTIES AND REGIONS						
	Passenger		Commercial ¹		Total ²	
	No.	% of Ontario	No.	% of Ontario	No.	% of Ontario
NIAGARA—Continued						
B—Niagara						
Haldimand.....	1946 5,039	0.9	883	0.8	5,922	0.8
	1959 8,419	0.5	2,822	0.9	11,241	0.6
Lincoln.....	1946 11,669	2.0	3,335	2.8	15,004	2.1
	1959 34,101	2.2	7,024	2.2	41,125	2.2
Welland.....	1946 17,759	3.0	2,805	2.4	20,564	3.0
	1959 43,124	2.7	8,344	2.7	51,468	2.7
Sub-total.....	1946 34,467	5.9	7,023	6.0	41,490	5.9
	1959 85,644	5.4	18,190	5.8	103,834	5.5
TOTAL, NIAGARA.....	1946 77,395	13.2	15,045	12.8	92,440	13.1
	1959 200,232	12.6	36,582	11.6	236,814	12.5
LAKE ERIE						
Elgin.....	1946 8,935	1.5	1,569	1.3	10,504	1.5
	1959 19,190	1.2	4,548	1.4	23,738	1.2
Middlesex.....	1946 21,587	3.7	4,195	3.6	25,782	3.7
	1959 56,141	3.6	10,364	3.3	66,505	3.5
Norfolk.....	1946 7,215	1.2	1,576	1.3	8,791	1.3
	1959 13,265	0.8	3,622	1.2	16,887	0.9
Oxford.....	1946 10,943	1.9	2,076	1.8	13,019	1.9
	1959 20,544	1.3	5,421	1.7	25,965	1.4
TOTAL, LAKE ERIE.....	1946 48,680	8.3	9,416	8.0	58,096	8.3
	1959 109,140	6.9	23,955	7.6	133,095	7.0
LAKE ST. CLAIR						
A—Border						
Essex.....	1946 29,380	5.0	5,822	4.9	35,202	5.0
	1959 64,355	4.1	11,502	3.6	75,857	4.0
Kent.....	1946 13,364	2.3	2,642	2.3	16,006	2.3
	1959 26,187	1.7	7,253	2.3	33,440	1.8
Sub-total.....	1946 42,744	7.3	8,464	7.2	51,208	7.3
	1959 90,542	5.8	18,755	5.9	109,297	5.8
B—Lambton						
Lambton.....	1946 11,203	1.9	1,704	1.5	12,907	1.8
	1959 26,918	1.7	5,231	1.7	32,149	1.7
Sub-total.....	1946 11,203	1.9	1,704	1.5	12,907	1.8
	1959 26,918	1.7	5,231	1.7	32,149	1.7
TOTAL, LAKE ST. CLAIR.....	1946 53,947	9.2	10,168	8.7	64,115	9.1
	1959 117,460	7.5	23,986	7.6	141,446	7.5
UPPER GRAND RIVER						
Huron.....	1946 9,500	1.6	1,214	1.0	10,714	1.5
	1959 14,951	0.9	4,029	1.3	18,980	1.0
Perth.....	1946 9,319	1.6	1,279	1.1	10,598	1.5
	1959 15,628	1.0	3,775	1.2	19,403	1.0
Waterloo.....	1946 16,604	2.8	2,729	2.3	19,333	2.8
	1959 44,873	2.9	8,131	2.5	53,004	2.8
Wellington.....	1946 9,098	1.6	1,307	1.1	10,405	1.5
	1959 30,458	1.9	4,662	1.5	35,120	1.9
TOTAL, UPPER GRAND RIVER.....	1946 44,521	7.6	6,529	5.6	51,050	7.3
	1959 105,910	6.7	20,597	6.5	126,507	6.7
GEORGIAN BAY						
A—Blue Water						
Bruce.....	1946 8,115	1.4	990	0.8	9,105	1.3
	1959 12,948	0.8	3,123	1.0	16,071	0.9
Dufferin.....	1946 2,962	0.5	343	0.3	3,305	0.5
	1959 4,447	0.3	1,375	0.4	5,822	0.3
Grey.....	1946 10,415	1.8	1,236	1.1	11,651	1.7
	1959 15,887	1.0	3,783	1.2	19,670	1.0
Simcoe.....	1946 14,074	2.4	2,459	2.1	16,533	2.4
	1959 32,343	2.1	7,499	2.4	39,842	2.1
Sub-total.....	1946 35,566	6.1	5,028	4.3	40,594	5.8
	1959 65,625	4.2	15,780	5.0	81,405	4.3
B—Highlands						
Muskoka.....	1946 2,986	0.5	824	0.7	3,810	0.5
	1959 6,542	0.4	2,443	0.7	8,985	0.5
Parry Sound.....	1946 3,123	0.6	793	0.7	3,916	0.6
	1959 5,918	0.4	2,832	0.9	8,750	0.5
Sub-total.....	1946 6,109	1.1	1,617	1.4	7,726	1.1
	1959 12,460	0.8	5,275	1.6	17,735	1.0
TOTAL, GEORGIAN BAY.....	1946 41,675	7.2	6,645	5.7	48,320	6.9
	1959 78,085	5.0	21,055	6.6	99,140	5.3

MOTOR VEHICLE REGISTRATIONS, ONTARIO, 1946 AND 1959—Continued

COUNTIES AND REGIONS							
		Passenger		Commercial ¹		Total ²	
		No.	% of Ontario	No.	% of Ontario	No.	% of Ontario
NORTHEASTERN ONTARIO							
A —Clay Belt							
Cochrane.....	1946	5,342	0.9	1,957	1.7	7,299	1.0
	1959	15,619	1.0	4,964	1.5	20,583	1.1
Nipissing.....	1946	3,315	0.6	1,149	1.0	4,464	0.6
	1959	12,122	0.8	4,078	1.3	16,200	0.9
Timiskaming.....	1946	4,248	0.7	1,525	1.3	5,773	0.8
	1959	11,736	0.7	4,082	1.3	15,818	0.8
Sub-total.....	1946	12,905	2.2	4,631	3.9	17,536	2.5
	1959	39,477	2.5	13,124	4.1	52,601	2.8
B—Nickel Range							
Manitoulin.....	1946			Included in Algoma			
	1959	2,014	0.1	1,071	0.4	3,085	0.2
Sudbury.....	1946	7,221	1.2	2,251	1.9	9,472	1.3
	1959	30,622	2.0	7,336	2.3	37,958	2.0
Sub-total.....	1946	7,221	1.2	2,251	1.9	9,472	1.3
	1959	32,636	2.1	8,407	2.7	41,043	2.2
C Sault							
Algoma.....	1946	6,517	1.1	1,661	1.4	8,178	1.2
	1959	21,628	1.4	5,543	1.8	27,171	1.4
Sub-total.....	1946	6,517	1.1	1,661	1.4	8,178	1.2
	1959	21,628	1.4	5,543	1.8	27,171	1.4
TOTAL, NORTHEASTERN ONTARIO							
	1946	26,643	4.5	8,543	7.3	35,186	5.0
	1959	93,741	6.0	27,074	8.6	120,815	6.4
LAKEHEAD-NORTHWESTERN ONTARIO							
Kenora.....	1946	1,723	0.3	895	0.8	2,618	0.4
	1959	7,263	0.5	2,891	0.9	10,154	0.5
Rainy River.....	1946	1,420	0.2	672	0.6	2,092	0.3
	1959	5,178	0.3	1,862	0.6	7,040	0.4
Thunder Bay.....	1946	8,563	1.5	2,906	2.5	11,469	1.6
	1959	26,892	1.7	7,245	2.3	34,137	1.8
TOTAL, LAKEHEAD-NORTHWESTERN ONTARIO							
	1946	11,706	2.0	4,473	3.8	16,179	2.3
	1959	39,333	2.5	11,998	3.8	51,331	2.7
NON-RESIDENTS.....							
	1946	—	—	—	—	—	—
	1959	1,592	0.1	1,045	0.3	2,637	0.1
GRAND TOTAL, ONTARIO.....							
	1946	585,604	100.0	117,217	100.0	702,821	100.0
	1959	1,573,365	100.0	316,272	100.0	1,889,637	100.0

¹Includes buses.

²Does not include dual purpose vehicles or motorcycles, not available on a county basis.

Source: Memoranda from Ontario Department of Transport.

Communications

NUMBER OF TELEPHONES, ONTARIO, 1951, 1959 AND 1960

SELECTED CITIES							
	1951	1959	1960		1951	1959	1960
EASTERN ONTARIO				LAKE ST. CLAIR			
Cornwall.....	10,030	15,446	15,964	Chatham.....	10,653	15,445	15,923
Kingston.....	15,426	26,080	27,468	Sarnia.....	13,487	24,008	24,817
Ottawa.....	83,157	136,290	142,295	Windsor.....	43,903	67,020	68,790
LAKE ONTARIO				UPPER GRAND RIVER			
Belleville.....	9,197	14,606	15,344	Galt.....	7,819	11,542	12,026
Peterborough.....	13,638	21,945	22,406	Guelph.....	10,933	17,473	18,423
METROPOLITAN				Kitchener-Waterloo.....	20,614	37,732	40,048
Oshawa.....	13,802	24,483	26,069	Stratford.....	6,864	9,056	9,418
Toronto (City).....	403,323	505,812	519,419	GEORGIAN BAY			
Toronto (Metropolitan).....	430,524	729,200	764,578	Owen Sound.....	5,837	8,857	9,124
NIAGARA				NORTHEASTERN ONTARIO			
Brantford.....	17,727	23,352	24,067	North Bay.....	7,935	14,745	15,608
Hamilton.....	71,179	105,390	108,160	Sault Ste. Marie.....	11,462	21,274	22,784
Niagara Falls.....	14,085	22,245	22,832	Sudbury-Copper Cliff.....	15,779	26,767	28,217
St. Catharines.....	21,355	36,766	38,195	LAKEHEAD-NORTHWESTERN ONTARIO			
Welland.....	8,013	12,751	13,343	Fort William.....	11,450	18,820	n.a.
LAKE ERIE				Port Arthur.....	9,371	16,331	n.a.
London.....	40,859	66,048	69,602				
St. Thomas.....	8,832	10,761	11,044				
Woodstock.....	5,684	9,117	9,584				

n.a. Not available.

Source: Dominion Bureau of Statistics, *Telephone Statistics*; Bell Telephone Company of Canada, *Company Telephones by Exchanges*.

ESTIMATED REGIONAL DISTRIBUTION OF TELEPHONES, ONTARIO, 1951 AND 1959

	1951			1959			Total Per Cent Change 1959/1951
	Independent Systems ¹	Bell Telephone Company of Canada	Total	Independent Systems ¹	Bell Telephone Company of Canada	Total	
	No.	No.	No.	No.	No.	No.	
Eastern Ontario.....	13,761	147,501	161,262	13,081	248,176	261,257	62.0
Lake Ontario.....	13,627	50,052	63,679	15,561	83,320	98,881	55.3
Metropolitan.....	6,857	487,164	494,021	5,019	873,195	878,214	77.8
Niagara.....	7,663	160,689	168,352	4,050	260,966	265,016	57.4
Lake Erie.....	13,214	75,340	88,554	15,985	117,521	133,506	50.8
Lake St. Clair.....	10,235	89,475	99,710	10,974	143,794	154,768	55.2
Upper Grand River.....	15,553	68,530	84,083	14,698	112,475	127,173	51.2
Georgian Bay.....	19,797	43,918	63,715	17,326	79,098	96,424	51.3
Northeastern Ontario.....	28,861	40,003	68,864	37,847	90,483	128,330	86.4
Lakehead-Northwestern Ontario...	31,991	16	32,007	44,341	12,835	57,176	78.6
TOTAL, ONTARIO.....	161,559	1,162,688	1,324,247	178,882	2,021,863	2,200,745	66.2

¹Does not include telephones of systems owned or operated by departments or commissions of the Dominion and Provincial Governments, nor by incorporated companies other than telephone companies.

Source: Ontario Telephone Authority, *Annual Report*; Bell Telephone Company of Canada, *Company Telephones by Exchanges*.

RADIO STATIONS, ONTARIO, 1961

CENTRES AND REGIONS

	Call Letters	Power (Watts)
EASTERN ONTARIO		
A—Ottawa Valley		
Ottawa.....	CBO ¹	5,000
	CBO-FM ¹	380
	CFRA	5,000
	CFRA-FM	860
	CKCH (French)	5,000
	CKOY	5,000 (day)
		1,000 (night)
Pembroke.....	CHOV	1,000
Smiths Falls.....	CJET	1,000
B—Upper St. Lawrence		
Brockville.....	CFJR	1,000 (day)
		250 (night)
Cornwall.....	CJSS	1,000
	CJSS-FM	600
	CFML (French)	1,000
	CKLC	5,000
Kingston.....	CKLC-FM	250
	CKWS	5,000
	CKWS-FM	250
LAKE ONTARIO		
Belleville.....	CJBO	1,000
Cobourg-Port Hope.....	CHUC	1,000
Lindsay.....	CKLY	1,000
Peterborough.....	CHEx	5,000
	CKPT	1,000
METROPOLITAN		
Brampton.....	CHIC	250
	CHIC-FM	857
	CHWO	1,000 (day)
		500 (night)
Oakville.....	CKLB	10,000 (day)
		5,000 (night)
Oshawa.....	CKLB-FM	14,000
	CJRH	1,000 (day)
		250 (night)
Richmond Hill.....		
Toronto.....	CBL ¹	50,000
	CBC-FM ¹	11,900
	CFRB	50,000
	CFRB-FM	250
	CHFI-FM	9,450
	CHUM	5,000 (day)
		2,500 (night)
	CJBC ¹	50,000
	CKEY	5,000 (day)
		1,000 (night)
	CKFH	10,000
NIAGARA		
A—Burlington		
Brantford.....	CKPC	10,000
	CKPC-FM	250
	CHML	5,000
Hamilton.....	CKOC	5,000
B—Niagara		
Niagara Falls.....	CHVC	10,000
St. Catharines.....	CKTB	10,000 (day)
		5,000 (night)
	CKTB-FM	250
Welland-Port Colborne.....	CHOW	1,000
LAKE ERIE		
London.....	CFPL	10,000 (day)
		5,000 (night)
	CFPL-FM	4,500
	CKSL	5,000
St. Thomas.....	CHLO	1,000
Simcoe.....	CFRS	250
Tillsonburg.....	CKOT	1,000
Woodstock.....	CKOX	250

RADIO STATIONS, ONTARIO, 1961—Continued

CENTRES AND REGIONS

	Call Letters	Power (Watts)
LAKE ST. CLAIR		
A—Border		
Chatham.....	CFCO	1,000
Leamington.....	CJSP	1,000
Windsor.....	CBEI	10,000
	CKLW	50,000
	CKLW-FM	250
B Lambton		
Sarnia.....	CHOK	5,000 (day) 1,000 (night)
UPPER GRAND RIVER		
Galt.....	CFTJ	250
Guelph.....	CJOY	10,000 (day) 5,000 (night)
Kitchener-Waterloo.....	CKCR	250
	CKCR-FM	n.a.
	CKKW	1,000
Stratford.....	CJCS	250
Wingham.....	CKNX	2,500 (day) 1,000 (night)
GEORGIAN BAY		
A—Blue Water		
Barrie.....	CKBB	5,000
Midland.....	CKMP	250
Orillia.....	CFOR	10,000 (day) 1,000 (night)
Owen Sound.....	CFOS	1,000
B—Highlands		
Muskoka—Parry Sound	CKAR	1,000 (Muskoka) 250 (Parry Sound)
NORTHEASTERN ONTARIO		
A—Clay Belt		
Kirkland Lake.....	CJKL	5,000
North Bay.....	CFCH	10,000
Timmins.....	CFCL (French)	10,000 (day) 2,500 (night)
	CKGB	10,000
	CKGB-FM	250
B—Nickel Range		
Sudbury.....	CFBR (French)	1,000
	CHNO	10,000 (day) 1,000 (night)
	CKSO	10,000 (day) 5,000 (night)
C—Sault		
Blind River—Elliot Lake.....	CJNR	1,000
Sault Ste. Marie.....	CJIC	10,000 (day) 2,500 (night)
	CKCY	250
LAKEHEAD-NORTHWESTERN ONTARIO		
Fort Frances.....	CFOB	1,000
Fort William—Port Arthur.....	CKPR	5,000 (day) 1,000 (night)
	CKPR-FM	250
Kenora.....	CJLX	5,000
Port Arthur—Fort William.....	CJRL	1,000
	CFPA	1,000 (day) 250 (night)

n.a. Not available.

*Owned and operated by the Canadian Broadcasting Corporation.

 Source: Maclean-Hunter Publishing Company Limited, *Canadian Advertising*, (March-April, 1961).

TELEVISION STATIONS, ONTARIO, 1961

CENTRES AND REGIONS

	Call Letters		Power (Watts)
EASTERN ONTARIO			
A—Ottawa Valley			
Ottawa (French).....	CBOFT ¹	V	55,000
		A	31,000
Ottawa.....	CBOT ¹	V	50,100
		A	26,700
Ottawa.....	CJOH-TV	V	325,000
		A	162,000
B—Upper St. Lawrence			
Cornwall.....	CJSS-TV	V	260,000
		A	13,000
Kingston.....	CKWS-TV	V	257,000
		A	154,000
LAKE ONTARIO			
Peterborough.....	CHEX-TV	V	260,000
		A	156,000
METROPOLITAN			
Toronto.....	CBLT ¹	V	99,500
		A	53,500
NIAGARA			
A—Burlington			
Hamilton.....	CHCH-TV	V	150,000
		A	90,000
LAKE ERIE			
London.....	CFPL-TV	V	325,000
		A	195,000
LAKE ST. CLAIR			
A—Border			
Windsor.....	CKLW-TV	V	325,000
		A	180,000
UPPER GRAND RIVER			
Kitchener.....	CKCO-TV	V	325,000
		A	160,000
Wingham.....	CKNX-TV	V	180,000
		A	100,000
GEORGIAN BAY			
A—Blue Water			
Barrie.....	CKVR-TV	V	100,000
		A	50,000
NORTHEASTERN ONTARIO			
A—Clay Belt			
Elk Lake.....	CFCL-TV-2	V	2
		A	
Kapuskasing.....	CFCL-TV-1	V	2
		A	
North Bay.....	CKGN-TV	V	51,500
		A	25,750
Timmins.....	CFCL-TV	V	18,500
		A	9,250
B—Nickel Range			
Sudbury.....	CKSO-TV	V	30,000
		A	16,000
C—Sault			
Elliot Lake.....	CKSO-TV-1 ³	V	3,400
		A	1,700
Sault Ste. Marie.....	CJIC-TV	V	28,000
		A	15,000
LAKEHEAD-NORTHWESTERN ONTARIO			
Kenora.....	CHWAT ¹	V	500
		A	250
Port Arthur.....	CF CJ-TV	V	28,000
		A	15,000

V—Video.

A—Audio.

¹Owned and operated by the Canadian Broadcasting Corporation.²Satellite station of CFCL-TV Timmins.³Satellite station of CKSO-TV Sudbury.Source: Maclean-Hunter Publishing Company Limited, *Canadian Advertising*, (March-April, 1961).

ESTIMATED DISTRIBUTION OF TELEVISION HOUSEHOLDS, ONTARIO, MARCH, 1960

SELECTED URBAN AREAS, COUNTIES AND REGIONS

	Households ¹	Per Cent Television	Television Households
EASTERN ONTARIO			
Carleton-Russell	83,800	94	79,100
Ottawa-Metropolitan Area ²	74,700	95	70,700
Dundas-Stormont	20,000	90	18,000
Frontenac	21,400	89	19,000 ³
Kingston City Area	16,900	89	15,000
Glengarry-Prescott	11,300	91	10,300
Grenville-Leeds	18,800	82	15,400
Lanark	11,000	82	9,000
Renfrew	20,400	75	15,400
TOTAL	186,700	89	166,200
LAKE ONTARIO			
Durham	10,700	86	9,200 ³
Haliburton	2,300	73	1,700 ³
Hastings-Prince Edward	30,800	86	26,500
Lennox & Addington	6,300	87	5,500 ³
Northumberland	11,600	82	9,500
Peterborough	20,100	88	17,700
Victoria	8,900	84	7,500
TOTAL	90,700	86	77,600
METROPOLITAN			
Halton	21,900	94	20,500 ³
Part of Hamilton Metropolitan Area	7,300	95	6,900 ³
Ontario	32,900	90	29,700 ³
Oshawa City Area	19,100	94	17,900
Peel	25,700	94	24,200
York	410,700	92	379,000
Toronto Metropolitan Area	385,300	93	358,100
TOTAL	491,220	92	453,400
NIAGARA			
Brant	23,500	90	21,100
Haldimand	7,900	81	6,400
Lincoln	34,300	90	31,000
Welland	44,600	94	42,000
Wentworth	94,200	95	89,100 ³
Part of Hamilton Metropolitan Area	91,200	95	86,300 ³
TOTAL	204,500	93	189,600
LAKE ERIE			
Elgin	17,800	87	15,500
Middlesex	58,900	95	55,700
London Metropolitan Area	47,900	97	46,700
Norfolk	14,200	89	12,700
Oxford	20,000	86	17,200
TOTAL	110,900	91	101,100
LAKE ST. CLAIR			
Essex	73,900	97	71,700
Windsor Metropolitan Area	55,600	99	54,900
Kent	26,400	88	23,100
Lambton	27,900	89	24,700
TOTAL	128,200	93	119,500
UPPER GRAND RIVER			
Huron	15,600	82	12,800
Perth	17,000	88	14,900
Waterloo	44,400	90	40,000
Kitchener-Waterloo City Area	24,300	95	23,100
Wellington	22,700	86	19,200
Guelph City Area	11,300	89	10,100
TOTAL	99,700	87	86,900

ESTIMATED DISTRIBUTION OF TELEVISION HOUSEHOLDS, ONTARIO, MARCH, 1960—Continued

SELECTED URBAN AREAS, COUNTIES AND REGIONS

	Households ¹	Per Cent Television	Television Households
GEORGIAN BAY			
Bruce-Grey	31,800	86	27,300
Muskoka	7,700	73	5,600 ²
Parry Sound	8,000	88	7,000
Simcoe East	15,100	90	13,600
Simcoe (Bal.)-Dufferin	26,000	93	24,100
TOTAL	88,600	88	77,600
NORTHEASTERN ONTARIO			
Algoma	23,000	90	20,700
Cochrane	21,800	87	18,900
Nipissing	15,400	87	13,400
Sudbury-Manitoulin	39,700	92	36,400
<i>Sudbury City Area</i>	25,600	95	24,300
Timiskaming	13,800	78	10,700
TOTAL	107,900	82	88,900
LAKEHEAD-NORTHWESTERN ONTARIO			
Kenora-Rainy River	19,800	42	8,300
Thunder Bay	34,100	89	30,500
TOTAL	53,900	72	38,800
GRAND TOTAL, ONTARIO	1,568,100	90	1,410,800

¹These are projections based on the *Census of Canada*, 1956.²Does not include Quebec portions.³Estimated by the Ontario Department of Economics.Source: The Bureau of Broadcast Measurement, Toronto, *BBM Estimates*.

